

A
SIX MONTHS TOUR
THROUGH THE
NORTH of ENGLAND.

CONTAINING,
An Account of the present State of AGRICULTURE,
MANUFACTURES and POPULATION, in several
Counties of this Kingdom.

PARTICULARLY,

- | | |
|---|--|
| I. The Nature, Value, and Rental
of the Soil. | VI. The Condition and Number
of the Poor, with their Rates,
Earnings, &c. |
| II. The Size of Farms, with Ac-
counts of their Stock, Products,
Population, and various Methods
of Culture. | VII. The Prices of Labour and
Provisions, and the Proportion
between them. |
| III. The Use, Expence, and Profit
of several Sorts of Manure. | VIII. The Register of many cu-
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Agriculture, and general Prac-
tices in Rural Oeconomics, com-
municated by several of the No-
bility, Gentry, &c. &c. |
| IV. The Breed of Cattle, and the
respective Profits attending them. | |
| V. The State of the Waste Lands
which might and ought to be
cultivated. | |

INTERSPERSED

With Descriptions of the SEATS of the NOBILITY and GENTRY;
and other remarkable Objects: Illustrated with Copper Plates of
such Implements of Husbandry, as deserve to be generally known;
and Views of some picturesque Scenes, which occurred in the Course
of the Journey.

La seule voie de se procurer un corps complet d'agriculture seroit, sans
doute, de rassembler les diverses observations qu'auroient fourni dans
chaque province.

ENCYCLOPÉDIE.

IN FOUR VOLUMES.

The SECONDEDITION, corrected and enlarged.

VOL. III.

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OF THE

THIRD VOLUME.

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A

SIX MONTHS TOUR, &c.

L E T T E R XV.

FROM *Raby* to *Durham* the land is in general very good, letting so high as from 15*s.* to 3*l.* but the average is not above 21*s.* or 22*s.* Farms in general under an hundred a year.

About that city there is much mustard cultivated: The farmers sow it alone, on good rich moist land; and on that which is pared and burnt. They get from thirty to an hundred bushels *per* acre; and the price varies from 10*s.* to 20*s.* a bushel; some crops worth 100*l.* an acre have been known. When once mustard has been sown on a piece of land, it can never be got out again: In tillage it rises with every crop that is sown, which obliges the farmers to lay down such lands to grass, which smothers it, but if broke up again centuries afterwards, a crop of mustard is sure to rise.

Taking the road to *Newcastle* *, we found

* The ornamented grounds of — Carr, Esq; at *Cocken*, are laid out with so much taste, that
Vol. III. B it

the land in general good, and let very high. That town is too famous in the path of

it is a great omission in any traveller to pass without seeing them: That Gentleman and his Lady, Lady *Mary Carr*, have both given much attention to the assisting nature in their very beautiful spot, by rendering her accessible.

Cocken has the advantage of a fine river, in some places very rapid, and in others calm and smooth; it takes a waving course through the grounds, and has the noble advantage of a various shoar, in some places composed of noble rocks, in others of hanging woods, and also of cultivated inclosures: Art has judiciously aimed at nothing more than enabling the spectator to view these beauties to the best advantage.

The first point to which we were conducted, is a seat in a small circular plot, among the wood, north of the house, from which *Chester* steeple is caught in a very picturesque manner, between two projecting hills of wood: The spot is on the brink of a precipice, at the bottom of which the river bends very finely: The country is in general wild and uncultivated; but to the left is a hill of wood, which varies the scene.

Winding a little to the left, the walk leads to the dairy, from which, though very near the seat just described, the view is at once quite different. The country is now cultivated, the river divides, and you command it both ways. To the right is a scar of rock, crowned with pendent wood.

You are next conducted down the hill, and pursue the walk around a large meadow upon the banks of the river; it then enters a wood under a most romantic wall of rock; the walk (a
terrass

trade, to require from me a particular description : Many particulars, relative to its

terrass on the edge of the river) is totally the work of art, being cut out of the rock with much difficulty, and at a great expence. The scenery of these rocks is fine, for oaks, elms, and other trees grow out from every cleft to a great heighth, and hanging over your head, almost threaten you as you move. The wild imagination of *Salvator* has scarcely pictured any thing more striking, or in a more spirited stile, than this variety of wood — breaking forth from the craggy clefts and chasms of these noble rocks. The river aids the general effect, by the rapidity of its current ; for raging over rocks and stones, the roar is in unison with its shoar, and all together tend strongly to impress upon the mind an idea of awe and terror.

Advancing, the walk leads through a grass dale, the rocks are lost, and the whole scene varied : On one side the river is a hill covered with wood ; and you view the other through a tall scattered hedge in a most pleasing manner : It is a projecting rock, with a scattering of shrubby wood beautifully variegated. Here you should turn and view the rocks you have left ; the sun shining on them gives their reflection, in the smooth parts of the river, in a stile very picturesque.

Still advancing, you catch in front among the trees a ruin on the banks of the river, half covered with ivy, and backed nobly with wood ; the river rapid, under a new wall of formidable rocks. Just before you come to the abbey, you may remark an old oak, so connected with rock, that one may almost call it half wood and half stone.

commerce, I tried to get, but in vain ; such as I procured are inserted in a very few words ; but I can answer for their being ge-

Opposite the abbey the rocks give a fine curve, and under them the river and terrass wind in the most beautiful manner : It is here quite an amphitheatre of wood and rock ; wild, romantic, and sublime.

Seating yourself on a bench upon the little hill under the rock, with an elm in front, the view is very striking. To the right the wall of rocks presents its bold front, the river losing itself under them, and the opposite steep of wood. To the left a wave of woody hill.

Coming to the turn of the walk, the prospect back upon the rocks is prodigiously fine : They are seen as it were in perspective, and their tops, all crowned with oaks, have a great effect.

Winding up to the alcove on the hill to the right, you see a range of steep woods, hanging over broken rocks, in a stile peculiar : At a distance a scar of rock quite embosomed in a thick wood : The river winds through the valley beneath, and breaking into several distinct sheets of water, throw a beautiful variety over this romantic scene ; it loses itself to the left under another sweep of hanging woods : You look down upon the ruined abbey, on the opposite banks of the river, in a hollow. Above it, rises in front a waving hill, cut into inclosures ; and, over all, an extensive distant prospect.

From hence, crossing a few inclosures to come again into the ornamented grounds, the path you enter winds on the brink of a woody precipice, upon which you look in a very romantic manner.

nuine only, in receiving my intelligence from sensible inhabitants.

ner. It leads down to the river (here a smooth and gentle current) through a wild rugged way, and there brings you to another shore of pendent, craggy, broken rock, fringed with wood: In one place, almost under the dairy, it bulges forth in a vast projecting body, almost threatening to thunder into the river, and obstruct every drop of its stream. The walk takes a winding course through a thick wood, to the terras in front of the house, from which the view is totally different from any of the preceding; it looks down upon a deep winding valley, quite filled with wood: A fine bending hollow—The noise of the river at bottom, raging over the rocks, is heard, but no where seen; nor can any thing be more romantic than this effect: For looking down into the hollow, without perceiving the water, the imagination at once takes fire, and pictures a horrible depth of precipice, far beyond the truth; but in which it is somewhat assisted by the thickness of the wood breaking the line of sound.

Upon the whole, *Cocken* has received noble gifts from nature, and the assistance she has had from art has been the work of an elegant fancy, conducted by as correct a taste.

In the house are several pictures, which please the lovers of that noble art.

Trevifana. *Lot* and his daughters. The colouring is strong, and the expression spirited: Nor is it wanting in the effect of the clear obscure.

This town is supposed to contain forty thousand souls, and to employ of its own,

Rape of *Proserpine*. The colouring not amiss.

Diana and *Endymion*. Good.

Acis and *Galatea*. Expressive attitudes.

Venus attiring. Happily delicate and expressive; the roundness of the limbs, and the beauty of the naked, are striking: The pressure of her hand on her bosom is fine; and *his* want of attention characteristic of *such* a situation. It is a copy from *Guido*.

Bacchus and *Ariadne*. The attitude is very well caught; the colouring, and the naked of *Ariadne's* body, are pleasing.

Jupiter; and *Juno* in the *Cestus* of *Venus*. Her attitude is elegant, and the whole beautiful.

Hercules and *Omphale*. The colours, naked, and attitude, good.

Viviano. Architecture in perspective, two pieces. Very fine, brilliant, and spirited.

Trevisana. Portrait of the late Mr. *Carr*, nobly spirited.

Unknown. School-mistress in her school. Fine expression; the girls and boy are very well done; the girl reading, and the other knitting, very natural. The mistress the least spirited in the piece.

Ditto. An old man feeding his family with chestnuts. Very fine, spirited, and natural.

five hundred sail of ships ; four hundred of which are colliers. The corporation have

tural. The minute expression is strong : But the diffusion of light appears to be unnatural ; to proceed from no visible source.

Ditto. Landscape ; a cavern. Fine and brilliant.

Ditto. A philosopher reproving his copier. Very fine and natural ; the airs of the heads well preserved, and the hands excellently done. A copy.

Ditto. A large landscape ; rocks and water. Very fine. The cattle and figures excellent ; minutely done.

Ditto. Ditto of rocks, with a straggling branch, with the light behind it. Fine and spirited.

Ditto. Three ditto, in a dark stile. The light is well done, and much spirit in the piece.

Ditto. One ditto, their companion. Exceedingly fine. The perspective and keeping striking.

Ditto. Two ditto, something in the stile of *Zuccarelli*. Brilliant and pleasing.

Ditto. A ditto, rocks, with a trunk of a tree in water. The rocks fine ; and the water excellent.

Ditto. Two ditto in round. The cattle—the attitudes of the figures—the architecture and the trees, all have merit.

Ditto. Large landscape : It is in a dark stile, but good.

an estate of 13,500*l.* a year, and allow their mayor 1200*l.* a year. Sir *Walter Blacket*, when he serves that office, takes nothing.

These particulars will by no means satisfy you—they are far from satisfying myself, but they are all I could procure.—I wanted to be informed of the tonnage of their shipping, the number of sailors employed, the nature and extent of their foreign trade, the degree of increase or decrease, and at what periods, with many other circumstances.—I could insert, in the common hackneyed style, *That Newcastle is a place of very considerable trade, her merchants possessing a very extensive correspondence, exporting this, that, and the other, and importing such and such commodities, &c. &c.* These are the general accounts we meet with in books of geography, copied from one to another, till a man of any reading is disgusted with the impertinence. I may be trifling and absurd, but I will never give you such *pages of inanity* as these.

The people employed in the coal-mines are prodigiously numerous, amounting to

Salvator Rosa. A water fall. Spirited and alive.

Another; rocks and wood. Good; but does not appear to me to equal the first.

Poussin. Large landscape. In a fine but gloomy stile.

many

many thousands; the earnings of the men are from 1*s.* to 4*s.* a day, and their firing. The coal waggon roads, from the pits to the water, are great works, carried over all sorts of inequalities of ground, so far as the distance of nine or ten miles. The track of the wheels are marked with pieces of timber let into the road, for the wheels of the waggons to run on, by which means one horse is enabled to draw, and that with ease, fifty or sixty bushels of coals. There are many other branches of business that have much carriage in a regular track, that greatly want this improvement, which tends so considerably to the lowering the expences of carriage.

About five miles from *Newcastle* are the iron works, late *Crawley's*, supposed to be among the greatest manufactories of the kind in *Europe*. Several hundred hands are employed in it, insomuch that 20,000*l.* a year is paid in wages. They earn from 1*s.* to 2*s.* 6*d.* a day; and some of the foremen so high as 200*l.* a year. The quantity of iron they work up is very great, employing three ships to the *Baltic*, that each make ten voyages yearly, and bring seventy tons at a time, which amount to twenty-one hundred tons, besides five hundred tons more freighted in others. They use a good deal of *American* iron, which is as good as any *Swedish*, and
for

for some purposes much better. They would use more of it if larger quantities were to be had, but they cannot get it. A circumstance the person did not sufficiently explain, but which, in the mere outline, is worthy of remark.

They use annually seven thousand bolls of coals, at sixteen bushels each.

They manufacture anchors as high as seventy hundred weight, carriages of cannon, hoes, spades, axes, hooks, chains, &c. &c.

In general their greatest work is for exportation, and are employed very considerably by the *East India* company: They have of late had a prodigious artillery demand from that company.

During the war their business was extremely great: It was worse upon the peace; but for anchors and mooring chains the demand these last seven or eight years has been very regular and spirited. Their business in general, for some time past, has not been equal to what it was in the war.

As to the machines for accelerating several operations in the manufacture, the copper rollers for squeezing bars into hoops, and the scissars for cutting bars of iron—the turning cranes for moving anchors into and out of the fire—the beating hammer, lifted by the cogs of a wheel; these are machines of manifest utility, simple in their construction,

tion, and all moved by water. But I cannot conceive the necessity of their executing so much of the remaining work by manual labour. I observed eight stout fellows hammering an anchor in spots, which might evidently be struck by a hammer, or hammers, moved by water upon a vast anvil, the anchor to be moved with the utmost ease and quickness, to vary the seat of the strokes. It is idle to object the difficulty of raising such a machine; there are no impossibilities in mechanics: An anchor of twenty tons may, undoubtedly, be managed with as much ease as a pin. In other works besides the anchor-making, I thought I observed a waste of strength.

In the road from *Newcastle* to the works, upon rising the first hill, there is a most noble view into an extensive vale: Cultivated rising inclosures, surrounding a prodigious fine water, (the river *Tyne*) which has the appearance of a lake, several miles long, and of a great breadth. In the middle an island of an irregular oblong shape, scattered with trees: The whole water enlivened with numerous boats, sailing to and from *Newcastle*: The river loses itself at each end, under waving hills. Upon the whole it has the appearance of one of the finest lakes in the world. At *Newcastle*,

P R O V I-

P R O V I S I O N S.

Best Rye bread, <i>per lb.</i>	-	-	1 <i>d.</i>
Worst ditto, 10 <i>lb.</i> for	-	-	6
Butter, 20 <i>oz.</i>	-	-	9
Cheese,	-	-	1 $\frac{1}{2}$
Beef,	-	-	3
Mutton,	-	-	2 $\frac{1}{2}$
Veal,	-	-	2
Milk, <i>per pint,</i>	-	-	$\frac{1}{2}$
Potatoes, <i>per peck,</i>	-	-	3
Coals, <i>per chaldron,</i>	-	-	4 <i>s.</i>
Poor's house-rent, from 20 to 40 <i>s.</i>			
Their firing,	-	-	30 <i>s.</i>

Land around *Newcastle*, letts, as may be supposed, extravagantly, from 40 *s.* to 5 *l.* an acre.

As I enter the extensive county of *North-umberland* to-morrow, you must allow me to make the agriculture of it the subject of my next letter.

I remain, in the mean time, &c.

Newcastle.

L E T-

L E T T E R XVI.

AT *Gosworth*, in the road to *Morpeth*, the soil is chiefly loamy—part sandy, and but little clay; the average rent is about 20s. an acre; farms rise from 50*l.* a year to 400*l.* Their courses are,

- | | |
|-----------|----------------|
| 1. Fallow | And, 1. Fallow |
| 2. Wheat | 2. Maslin |
| 3. Oats. | 3. Oats. |
| Another, | Also, |
| 1. Fallow | 1. Turneps |
| 2. Wheat | 2. Barley |
| 3. Beans. | 3. Oats. |

For wheat they plow five times, sow two bushels about *Michaelmas*, and reap, upon an average, ten or twelve thrave, each thrave two stooks, or six pecks, that is, sixteen bushels and an half. For barley they plow on stubble three times, after turneps twice, and on a fallow five times; sow two bushels and an half in *April*, and reap fifteen thraves, at two bushels, or thirty bushels. For oats they give but one plowing, sow two bolls and a canning, or four bushels and an half, after barley, and gain in product much the same quantity as of that grain *. They plow but

* I have, for once, given the jargon of country measures; a vile abuse, that calls aloud for redress.—
You shall be plagued with them no more.

once for beans, sow them broad-cast, and under furrow, in *February*; never hoe; the medium crop about twenty-five bushels.—They are all sold for the colliery horses. For pease, but one earth, sow in *March*, and get from sixteen to twenty bushels. For rye they fallow three or four times; but after barley plow but once; sow two bushels, and gain in return thirty. For turneps they stir four times; hoeing is but coming in, for many do not practice it at all. The medium value *per* acre is, for the hoed ones, 4*l.* 4*s.* the unhoed, 3*l.* an argument so strong for hoeing, that one would imagine it sufficient to convince the blindest and most prejudiced of the cultivating tribe.—They use them for both sheep and beasts.

They sow a little rape on new land: Paring and burning, and one plowing, is the preparation—never feed it: The average crop of seed half a last.

No clover used.

They cultivate a few tares for the feeding horses. Likewise a little buckwheat, but it is not reckoned profitable.

Potatoes they plant after two or three plowings: Slice them into setts. Twelve bushels will plant an acre, at one foot square. They hand-hoe them twice, and hand-weed them occasionally. The crops are usually worth from 7*l.* to 10*l.* at 9*d.* a bushel.

Wheat

Wheat or rye succeeds; of which they have finer crops than common.

As to manuring, that of paring and burning is one important point; the expence,

The paring	-	-	-	9s.	6d.
Burning	-	-	-	2	6
					12 0

They never fold their sheep, nor chop their stubbles; but their hay they stack at home. Dung they buy at *Newcastle*, from 1s. to 2s. for a two-horse cart load.

Good grafs will lett for 30s. an acre. They apply it both to dairying and fatting: Three acres will keep two cows through the summer, and one acre three or four sheep. They manure it carefully. The breed of cattle short horned, which they prefer.

The product of a cow they reckon at 5 l. a good one will give five gallons of milk *per* day: — They keep but few swine, and not the more for their cows. The winter food of the latter hay and straw; of the first two ton; keep them in the house. Their calves suck five weeks for fatting, and six for rearing, and afterwards are fed with bean meal and milk. They reckon six or eight cows the proper number for a dairy-maid to manage.

Their swine they fat to twenty-four stone.

Their flocks of sheep rise from forty to eighty. The profit they reckon at 15s. a head.

head. They feed them in winter and spring on grass; some turneps; and when pinched for feed, turn them into their wheat and rye. 5*lb.* the average of fleeces.

They reckon eight horses necessary for the cultivation of an hundred acres of arable land, use three in a plough, and do an acre a day. When at work in winter they allow their horses a peck of oats *per* day; and reckon the annual expence at 7*l.* They plow up their stubbles for a fallow at *Christmas*. The price *per* acre of plowing, 5*s.* The depth five inches. They know nothing of chopping straw for chaff. The hire of a cart and three horses a day is 5*s.*

In the hiring and stocking of farms, they reckon 300*l.* requisite for one of 100*l.* a year.

Land sells at twenty-eight or thirty years purchase. There are some estates so low as 2 or 300*l.* a year.

Tythes are generally compounded;

Wheat, 8 <i>s.</i> 6 <i>d.</i>	Oats, 4 <i>s.</i>
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Barley, 4 <i>s.</i> 6 <i>d.</i>	Beans, 6 <i>s.</i>
---------------------------------	--------------------

Poor rates 2*d.* in the pound. Their employment, spinning wool and flax. But few drink tea.

The farmers carry their corn three miles.

The general œconomy will be seen from the following sketches.

300 acres

300 acres in all
 100 arable
 200 grafs
 £.300 rent
 14 horfes
 12 cows
 20 beafts
 12 young cattle
 40 ſheep
 1 man
 3 boys
 3 maids
 8 labourers
 3 ploughs
 6 carts
 No waggons.

Another,
 180 acres in all
 80 arable
 100 grafs
 £.140 rent
 8 horfes
 7 cows
 7 beafts
 20 young cattle
 30 ſheep
 1 man
 1 boy
 2 maids
 1 labourer
 2 ploughs
 4 carts.

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Another,
 450 acres in all
 200 arable
 250 grafs
 £.420 rent
 27 horfes
 30 cows
 25 beafts
 30 young cattle
 90 ſheep
 2 men
 3 boys
 10 labourers
 5 ploughs
 10 carts.

Another,
 100 acres in all
 60 arable
 40 grafs
 £.90 rent
 6 horfes
 4 cows
 8 young cattle
 20 ſheep
 1 man
 1 maid
 1 labourer
 1 plough
 3 carts.

C

L A-

LABOUR.

In harvest. 1 s. 6 d. and ale.

In hay time, 2 s. and ditto.

In winter, 1 s.

Mowing grafs, 2 s. and 4 s. 6 d.

Hoeing turneps, 6 s. and 4 s.

Ditching, &c. 1 s. 2 d. a rood.

Thrashing wheat, 2 $\frac{1}{4}$ d. a bushel.

———— barley, 1 $\frac{1}{2}$ d.

———— oats, 1 $\frac{1}{2}$ d.

Head man's wages, 12 l.

Next ditto, 8 l. or 9 l.

Boy of ten or twelve years, 3 l.

Dairy maids, 4 l.

Other ditto, 3 l. 10 s.

Women *per* day in harvest, 10 d. and 1 s.

In hay time, 6 d.

In winter, 6 d.

IMPLEMENTS.

A cart, 6 l. 6 s. or 7 l.

A plough, 1 l. 1 s.

A harrow, 15 s.

A rollor, 4 l. or 5 l. for grafs, but none for
barley.

A scythe, 3 s.

A spade, 3 s. 6 d.

Laying a share and coulter, 1 s.

Shoeing, 1 s. 4 d.

PROVISIONS.

The same as at *Newcastle*.

About

About *Morpeth* the soil is a loamy clay; letts from 5*s.* to 20*s.* per acre; average about 12*s.* Farms rise from 30*l.* to 500*l.* a year. Their courses,

- | | |
|-----------|----------|
| 1. Fallow | 3. Beans |
| 2. Wheat | 4. Oats. |

- ### 3. Oats

- #### 4. Oats.

And

- ## 1. Fallow

- ## 2. Wheat

- ### 3. Beans

- #### 4. Oats.

Also,

- ## 1. Turneps

- ## 2. Barley

- ### 3. Oats

4. Oats.

For wheat they plow four times, sow two bushels and an half between *Michaelmas* and *Martinmas*, and reap, upon an average, fourteen. For barley they give three stirrings, but five on a fallow, sow two bushels about the end of *March*, or beginning of *April*, and gain in return twenty bushels. They stir but once for oats, sow five bushels before barley sowing, and gain thirty in return. One plowing is also the number for beans; of which they sow three bushels broad cast—never hoe—the medium crop twenty-eight: Use them chiefly for horses. For pease they likewise plow but once, sow two bushels, and gain about fourteen. They give four stirrings for rye, sow two bushels, and gain, upon a medium, twenty.

For turneps they plow four times; all hoe twice or thrice; and the medium value *per* acre is 3*l.* use them for cattle and sheep. Clover they sow with both barley and wheat;

mow it for hay, and get from one and an half to two ton *per* acre, and sow oats after it.

Potatoes they prepare for by digging: The planters give 5*l.* *per* acre rent for the land they set them on: It is generally a stubble, dunged at the rate of twenty-five loads *per* acre, thirty-two bushels each. They dibble them in at one foot square; twenty-three bushels plant an acre; hand-hoe them three times at the expence of 2*s.* 6*d.* a time: The crop is from two hundred and fifty to four hundred bushels. The digging the ground, and digging up the crop, costs 5*l.* The price commonly 1*s.* a bushel.

The account, therefore, stands thus *per* acre:

E X P E N C E S.

Rent,	-	-	-	£.	5	0	0
Labour, manuring, cannot	}	be less than the day's	work of four horses, three			10	0
be less than the day's							
work of four horses, three							
men, and two carts, or							
Setts,	-	-	-	-	1	3	0
Dibbling,	-	-	-	-	0	5	0
Digging and taking up,					5	0	0
Hand-hoeing thrice,	-				0	7	6
					12	5	6

P R O D U C E.

350 bushels, at 1 <i>s.</i>	-	17	10	0
Expences,	-	12	5	6
Profit,	-	5	4	6
				But

But the profit of such thorough tillage is, perhaps, as considerable as this ballance. They sow barley afterwards, of which they get very great crops.

As to the management of manure, it may partly be judged from their stacking their hay both in the field and farm yard; and from their never chopping their stubbles.

Paring and burning was once used, but it is now done with.

They lime much, lay seventy bushels *per* acre, besides a dunging at the same time; it costs 7 s. besides the leading; they reckon they could not raise corn without it.

Very good grass land will lett at 20 s. an acre: They apply it mostly to fatting. An acre and an half they reckon sufficient for carrying a beast, of an hundred stone, through the summer, or to maintain seven or eight sheep.—Their breed of cattle is the short horned, which they reckon much the best.

The product of a cow they lay at 5 l. but on land of 20 s. an acre, they suppose it may amount to 9 or 10 l. A good one will give nine gallons of milk *per* day. Ten will maintain five or six swine. Their winter food is hay and straw. The calves do not suck at all, being brought up by hand, about six weeks, for either killing or rearing. A dairy maid, they reckon, can take care of six cows; and a ton and a half of hay is the quantity they allow for wintering one cow.

The joist, through the year, 3*l.* 10*s.* They are kept in winter in the house.

Their swine they fat up to twenty and thirty stone.

The profit on fattening an ox in grass, of one hundred stone, they reckon, at a medium, 5*l.*

Their flocks of sheep rise from thirty to one hundred; the profit on them they reckon at 10*s.* a sheep. In winter they keep them in grass; and in very bad weather give them hay; in *April* they turn them into their young clover: The average of their fleeces is 3*lb.*

In the tillage of their farms, they reckon that six horses are necessary for the culture of one hundred acres of arable land. They use either three horses in a plough, or two horses and two oxen; with the first, they do an acre and half a day, and with the second, not above half an acre; but then the last is the strongest of all their work.—Their allowance of oats to their teams, is two bushels *per* horse, *per* week. The annual expence of keeping a horse, they reckon 8*l.* They feed their working oxen on straw and hay in winter, and work on straw alone. The common time for breaking up stubbles for a fallow, is *March*, but some do it in *November*. The price of ploughing, is 5*s.* 6*d.*—The depth four or five inches. The hire of a cart, three horses and driver, 3*s.* 6*d.*

In

In the hiring and stocking farms, they reckon 450 *l.* necessary for one of 100 *l.* a year.

Land sells at thirty-two years purchase. Estates rise from 100 *l.* upwards.

Tythes are both gathered and compounded; when the latter, 2 *s.* 6 *d.* an acre for turneps, and 7 *s.* for wheat, barley, and oats, are common prices.

Poor rates, 6 *d.* in the pound. The employment of the poor, begging and strolling: All drink tea.

The farmers carry their corn six miles.

The general œconomy will be best seen from the following sketches:

130 acres in all	140 grafs
80 arable	£. 160 rent
50 grafs	12 horses
£. 60 rent	20 cows
7 horses	10 fattening beasts
4 oxen	30 young cattle
4 cows	50 sheep
20 sheep	2 boys
12 young cattle	2 maids
3 men	2 labourers
1 boy	4 ploughs
1 maid	6 carts.
2 ploughs	Another,
2 carts.	200 acres in all
Another,	100 arable
300 acres in all	£. 90 rent
160 arable	8 horses
	C 4 10 cows

10 cows	1 boy
5 fattening beasts	1 maid
30 sheep	1 labourer
10 young cattle	2 ploughs
1 man	4 carts.

L A B O U R.

In harvest, 1 s. and board.

In hay time, 1 s. 6 d. and beer.

In winter, 10 d.

Mowing grafs, 1 s. 6 d.

Hoeing turneps, 2 s. 6 d.

Ditching, 1 s. 2 d. a rood.

All thrashing done for the twenty-first part.

Head man's wages, 11 l.

Next ditto, 7 l.

A boy of twelve years, 3 l.

A dairy maid, 3 l. 10 s.

Other ditto, 3 l.

Women *per* day in harvest, 9 d. and beer.

In hay time, 6 d.

I M P L E M E N T S.

No waggons.

A cart, 7 l.

A plough, 20 s.

A harrow, 15 s.

A roller, 1 l. 5 s.

A scythe, 2 s. 6 d.

A spade, 3 s. 6 d.

Laying a share and coulter, 4 d. and find
iron; 1 s. without.

Shoeing, 1 s. 4 d.

P R O-

P R O V I S I O N S.

Bread—rye, or wheat and pease, or barley
and pease.

Cheese, 2 *d.*

Butter, 8 *d.* 16 *oz.*

Beef, 3 *d.*

Mutton, 3 *d.*

Veal, 3 *d.*

Pork, 4 *d.*

Milk, three pints of skim for $\frac{1}{2}$ *d.*

Potatoes, 3 *d.* a peck.

Candles, 7 *d.*

Soap, 7 *d.*

Labourer's house rent, 10 *s.*

Their firing, 10 *s.*

B U I L D I N G.

Oak timber, 2 *s.*

Ash, 1 *s.* 4 *d.*

A mason *per* day 1 *s.* and board.

A carpenter, 1 *s.* and ditto.

Farm houses of brick and stone.

From *Morpeth* to *Alnwick* land lets at an average at 12 *s.* and farms are in general from 40 *l.* to 200 *l.* a year. Wheat crops twenty bushels, barley thirty, and oats thirty-six. The soil about *Alnwick* is in general either a light loam, or a gravel, and lets at about 15 *s.* an acre. Farms from 100 *l.* to 800 *l.* a year. The courses most in use are,
1. Turneps

- | | |
|------------|-------------------|
| 1. Turneps | And, 1. Fallow |
| 2. Barley | 2. Wheat |
| 3. Oats | 3. Beans or pease |
| 4. Oats. | 4. Oats |
| | 5. Oats. |

which are both bad, but the last execrable. They plough for wheat three or four times, sow two bushels in *October*, and reap, on an average, twenty bushels. For barley they stir twice or thrice, sow two bushels in *April*, and gain, at a medium, forty bushels. They plough but once for oats, sow six bushels, after barley, and reckon the middling crop at forty. For beans but once, on pared and burnt land, sow five bushels, and get from forty to fifty. They sow but few pease; the method is, one ploughing, sow three bushels, and the crop twenty. For rye they plough three or four times, sow two bushels; the crop the same as of pease. They plough as often for turneps, hoe twice, and reckon the value *per* acre from 2 *l.* 10 *s.* to 5 *l.* 10 *s.* They feed them off with beasts and sheep. They use no clover, but sow a few tares to make into hay for their horses. They cultivate potatoes both by digging, and ploughing, and dunging; if the latter, it is three times: They slice and drop them into the furrow, so as to stand in rows twelve inches asunder; thirty-five pecks will plant an acre; the
crop

crop is generally worth 10*l.* or 12*l.* at 1*s.* 6*d.* a bushel.

For raising manure, they have no idea of chopping the stubbles, but stack their hay at home, consequently make much more than in places where it is stacked in the fields. They lime a great deal, lay eight or twelve bolls on an acre, at two bushels each.

Good grafs letts at 2*l.* an acre; they use it chiefly for cows; an acre will summer one, or three sheep. Their breed of cattle is the short horned, and will fat up to sixty or eighty stone.

Their swine fat from twelve to twenty stone.

The product of a cow they reckon at 7*l.* in good grafs; do not keep above a sow to ten. The winter food, hay, an acre and a half in quantity, and straw; kept in house. Calves do not suck above three days.

In the tillage of their lands, they reckon four horses will do for one hundred acres of arable land; use two in a plow, and do an acre and half a day; allow them half a peck of oats a day, and reckon the annual expence of keeping, &c. at 8*l.* *per* head. The time of breaking up their stubbles for a fallow, is after barley sowing. The price of ploughing, 3*s.* *per* acre, and the depth four inches. The hire of a cart, three horses, and driver, 5*s.* a day.

They

They reckon 300 *l.* necessary for the hiring and stocking a farm of 100 *l.* a year.

Land sells at thirty years purchase.

Tythes are both gathered and compounded.

Poor rates 6 *d.* in the pound ; their employment spinning.

L A B O U R.

In harvest, 1 *s.* 3 *d.* and 1 *s.* 6 *d.* a day.

In hay-time, ditto.

In winter, 10 *d.*

Mowing grass, 1 *s.* 6 *d.*

Hoeing turneps, 5 *s.* twice.

For thrashing, they have the 19th of all grain.

Head man's wages, 9 *l.*

Next ditto, 6 *l.*

Boy of twelve years, 3 *l.*

Maids, 3 *l.* to 5 *l.*

Women *per* day, in harvest, 1 *s.* 2 *d.*

In hay-time, 6 *d.*

I M P L E M E N T S.

No waggons.

A cart, 7 *l.* 10 *s.*

A plow, 1 *l.* 1 *s.*

A harrow, 1 *l.* 1 *s.*

A roller, 5 *l.*

A scythe, 3 *s.*

A spade, 3 *s.*

Laying a share, 6 *d.*

—— coulter, 6 *d.*

P R O-

P R O V I S I O N S.

Bread — Barley and pease				
Cheese, <i>per lb.</i>	-	-	-	2 $\frac{1}{2}$ <i>d.</i>
Butter, 16 oz.	-	-	-	6
Beef,	-	-	-	2 $\frac{1}{2}$
Mutton,	-	-	-	2 $\frac{1}{2}$
Veal,	-	-	-	2
Pork,	-	-	-	3
New milk, <i>per pint,</i>	-	-	-	$\frac{1}{2}$
Candles,	-	-	-	7
Soap,	-	-	-	7
Labourers house-rent,	-	-	-	20 s.
———— firing,	-	-	-	20 s.
———— tools,	-	-	-	9 s.

Down by the sea are many rich, grazing farms for oxen and sheep, up so high as 1000*l.* a year*.

From *Alnwick* to *Belford* land letts at 12*s.* an acre ; and farms rise from 40*l.* to 700*l.*

* The castle of *Alnwick*, the seat of his Grace the Duke of *Northumberland*, is most of it new built by the present Duke, and not yet finished : The apartments are all fitted up in the *Gothic* taste, and ornamented in a very light and elegant stile. The principal ones are, 1. A breakfast-room, 33 by 21. 2. Dining-room, 55 by 22 ; it has two bow-windows, but irregular, the *Gothic* work very elegant : Over the chimney, the *Duchess*, by *Reynolds*. 3. A drawing-room. 4. A library, 65 by 22, and at the end, a chapel. 5. A saloon, 40 by 20, and a bow. The architecture of the new buildings is quite in the castle stile, and very light and pleasing.

a year,

a year, but generally between 100*l.* & 200*l.* The wheat crops, at an average, 20 bushels *per* acre, barley 36, and oats the same.

About *Belford* there are many variations from the preceding management, which highly deserve attention. The soil is in general a loam, inclinable to a clay; good wheat land lets, in large farms, at 11*s.* an acre, but in small ones, near the town, at 20*s.* Farms rise from 100*l.* a year, to 500*l.* many of 300*l.* 350*l.* and 400*l.* The courses,

- | | |
|-----------|------------------|
| 1. Fallow | Also, 1. Turneps |
| 2. Wheat | 2. Barley |
| 3. Pease. | 3. Oats |
| | 4. Barley. |

For wheat they plow four or five times, sow three bushels in *November*, and gain upon an average about twenty-one. For barley they plow three times, but only twice after turneps, sow four bushels, about the 20th of *May*, and reckon the medium produce at five quarters. They stir but once for oats, sow six bushels, before barley seed time, and gain in return forty-eight. For beans they plow twice, sow six bushels, broad cast, the beginning of *March*, never hoe, but get sixty bushels in return; sell them for exportation. They give but one stirring for pease, sow four bushels the beginning of *March*, and gain from none at all to fifty bushels.

For

For turneps they plow four times, hoe twice, setting them out ten inches or a foot asunder, and value them, at a medium, at 45s. use them for fattening sheep and beasts, and rearing calves and young sheep. Tares they sow after wheat, on two plowings, generally for hay, of which they get about two tons *per* acre.

Potatoes they plow for thrice: Slice them for setts, drop them in the furrows, so as to lay fourteen inches square; hand-hoe them twice with a hoe seven inches wide; six bushels plant an acre: Some years they do not get above twenty-four bushels, but in others sixty. They sow barley after them.

In the management of the manure in the farm-yard they have merit, for they stack all their hay at home; and keep their cattle in houses, littered down clean. But they know nothing of chopping the stubbles for littering a farm-yard. Nor do they fold their sheep, although their flocks rise to one thousand. Paring and burning is known, but is going out.

Good grass land will lett at 20s. an acre. They apply it to all uses: An acre will keep a cow through the summer, or five sheep; but they never manure it.

Their breed of cattle is the short horned, but apprehend the long to be best, and are accordingly getting into them. They fat their oxen up to one hundred and fifty stone weight,

weight, and reckon 4*l.* 4*s.* the profit on one of eighty stone. Their swine to twenty-five.

Four pounds they reckon the produce of a cow, and a good one to give six gallons of milk a day: A dairy of eight, will enable the farmer to keep nine or ten swine. They give them hay in winter while milked, and straw when dry; keep them in the house, and allow each a ton and half of hay. The calves do not suck at all, but are brought up by hand; four months for rearing, and two for killing. One maid will, with help, take care of ten cows.

Their flocks of sheep rise from one hundred to six hundred; and the profit they reckon on buying to fat as follows:

Lamb,	-	-	o	8 <i>s.</i>	o
Wool,	-	-	o	2	o
Improvement of ewe,			o	4	o
			o	14	o

On stock sheep they calculate it,

Lamb,	-	-	o	6 <i>s.</i>	o
Wool,	-	-	o	1	8 <i>d.</i>
			o	7	8

In very hard weather they give them some hay, but their general winter keeping is on the sheep walks. The fleeces are from 3*lb.* to 5*lb.* the first at 5*d.* $\frac{1}{2}$, and the second at 9*d.* $\frac{1}{2}$.

In the tillage of their lands, they reckon eight oxen and six horses necessary for one hundred

hundred acres of arable land; they use either two oxen and two horses in a plough, or two horses alone; with the first they do half an acre a day, and with the last an acre and half; but then the first is used in the strong work, and goes much the deeper. They allow their horses the third of a bushel of oats each in winter *per week*, but none in summer; and reckon the annual expence *per horse* to be 5*l.* 7*s.* They give them no hay, only pea straw. Their draught oxen they feed in winter on straw and coarse hay, but work them on the first alone. They reckon oxen much the best on strong lands, plowing much steadier and deeper. They break up their stubbles for a fallow in autumn. The price of plowing is 6*s.* *per acre*, and the depth five to seven inches. They know nothing of chopping straw for chaff.

The hire of a cart, three horses, and a driver *per day*, is 5*s.*

They reckon, that a man should have 1200*l.* for the stocking a farm of 300*l.* a year.

Land sells in general at thirty years purchase.

Tythes are both gathered and compounded: If the latter,

Wheat pays 6*s.*

Barley, 5

Oats, 3 6*d.*

Beans, 3*s.*

Pease, 3

VOL. III.

D Poor

Poor rates, $7\frac{1}{2}d.$ in the pound. Their employment, besides idleness, is a little spinning. Very few drink tea.

There are some few estates so low as 100 $\text{\textit{l.}}$ a year, and to 300 $\text{\textit{l.}}$

The farmers carry their corn four miles.

The general œconomy will be seen from the following particulars of farms:

400 acres in all	30 young cattle
350 arable	500 sheep
50 grafs	3 men
£. 320 rent	2 boys
12 horses	3 maids
16 oxen	10 labourers
8 cows	6 ploughs
20 young cattle	6 carts.
300 sheep	Another,
2 men	200 acres, all ara-
4 boys	ble
2 maids	£. 100 rent
6 labourers	6 horses
4 ploughs	2 oxen
6 carts.	16 cows
Another,	16 young cattle
700 acres in all	60 sheep
400 arable.	1 man
300 grafs	1 boy
£. 300 rent	3 maids
16 horses	2 labourers
20 oxen	2 ploughs
10 cows	2 carts.
12 fatting beasts	

Another,

Another,

1100 acres in all
 700 arable
 400 grafs
 £.700 rent
 22 horfes
 30 oxen
 35 cows
 60 young cattle
 20 fattening beafts
 600 ſheep
 3 men
 4 boys
 5 maids
 16 labourers
 10 ploughs
 10 carts.

Another,

360 acres in all
 200 arable
 160 grafs
 £.250 rent
 8 horfes
 4 oxen
 10 cows
 3 fattening beafts
 16 young cattle
 50 ſheep
 1 man
 2 boys
 2 maids
 3 labourers
 3 ploughs
 3 carts.

L A B O U R.

In harveſt, 1 s.

In hay time, 1 s.

In winter, 10 d.

Mowing grafs, 2 s. 6 d.

Hoeing turneps, from 2 s. 6 d. to 4 s.

Thraſhing, the 20th of all grain.

Head man's wages, 9 l.

Next ditto, 7 l. 7 s.

Boy of fifteen years, 5 l.

Maids, 3 l. 3 s.

Women per day in harveſt, 1 s.

In hay time, 6 d. uſed to be but 4 d.

In winter, 4 d.

D 2

IMPLE-

I M P L E M E N T S.

No waggons.

A cart, 7*l.* 10*s.*

A wain, 7*l.* 10*s.*

A plough, 1*l.* 15*s.*

A harrow, 1*l.* 5*s.*

A roller, 4*l.* of wood.

A scythe, 5*s.*

A spade, 2*s.* 8*d.*

The black-smith shoes all the horses, repairs the plough irons, and all the cart ditto, for 1*l.* 1*s.* *per* horse, *per* annum.

Shoeing, 2*s.*

P R O V I S I O N S.

Bread—barley and pease.

Cheese, *per* lb. 3*d.*

Butter, 18 oz. 6

Beef, 3*d.* $\frac{1}{2}$

Mutton, 2*d.* $\frac{1}{2}$

Veal, 2

Milk, new, a pint, $\frac{1}{2}$

—, skim, three pints, $\frac{1}{2}$

Potatoes, 2*s.* a bushel.

Candles, 5*d.* $\frac{1}{2}$

Soap, 6*d.*

Labourer's house rent, 20*s.*

— firing, 24*s.*

Their tools the farmer finds.

BUILD.

B U I L D I N G.

Bricks, <i>per</i> thousand,	-	10s.
Tiles,	- - - -	40
Oak timber,	- - - -	2 <i>per</i> foot.
Ash,	- - - -	1
Elm,	- - - -	1
A mason <i>per</i> day,	- - - -	1 6 <i>d.</i>
A carpenter,	- - - -	1 6
A thatcher,	- - - -	1 4

Stone walling, dry, that is, without mortar,
4 *d.* a square yard cutting and laying, and
10 *d.* leading.

In mortar five feet and a half high and a yard
square, cutting and laying 7 *d.* lime, sand,
and leading 2 *s.*

Farm houses of stone, and slate or pantile.

In the parish of *Belford* are

10,600 acres in all

3,300 of ditto moors

400 wood

200 bogs

20 farms, and 600 acres in little
parcels

180 labourers

20 men servants

200 horses (by twenty farmers)

150 oxen

4000 sheep

40 fatting beasts

6*d.* in the pound rates

£. 3,300 rent.

The town of *Belford*, which is a pretty, well situated place, belongs entirely to *Abraham Dixon*, Esq; That Gentleman's father procured a market and two fairs to be established at it; but the spirited conduct of the present owner is what has brought it to the condition, so flourishing to what it formerly was; thirteen years ago it did not contain above an hundred souls, but they now amount to above six times that number: And this increase has been owing to the excellent means of introducing an industry unknown to former times. Mr. *Dixon* has established a woollen manufacture, which already employs sixteen looms, and the spinning business goes on sufficiently to keep them at work: A noble acquisition in a place where a spinning-wheel was not to be seen a few years ago. Another establishment of very great importance, was that of a tannery. The nearest tanners were those of *Berwick* and *Alnwick*: This was an inconvenience and a disadvantage to the neighbourhood; therefore Mr. *Dixon*, at the expence of 700 l. fixed a tannery, which now turns out to good account, and is a peculiar benefit to the neighbourhood.

The situation of *Belford*, half way between *Alnwick* and *Berwick*, at the distance of thirty miles, was very advantageous for fixing a good inn, with post-chaifes and accommodations for travellers. This, likewise, was executed,

executed, and is now found of peculiar use to all travellers, and of benefit to the town.

But as a town without good roads to and from it is of course but in a paltry condition, Mr. *Dixon* applied himself with great spirit to rendering the road to *Belford*, north and south, as good as possible; this he effected as far as his influence extended, and would not have left a mile of bad road in the whole country, had others been as solicitous as himself about so important an object.

Coals had formerly been raised around *Belford*, but the pits exhausted, and the undertaking discontinued for many years. The common report which this active Gentleman heard on all sides was, that no more coal was advantageously to be had; but common report was not sufficient for him; he tried in several places, and was fortunate enough to find a very beneficial seam, which has been since worked to noble advantage, both to the town and the proprietor.

Discovering of coal, led to the burning of lime for the purposes of agriculture, as a manure, in a much larger way than had been usual; and for this work three new limekilns were erected, in a most substantial manner, and at a large expence.

This spirited Gentleman meditates yet greater works: He proposes to establish such manufactures, as may employ all the poor of the country. He designs to build a coal road

from his pits to the town, and he conceives some hopes of making *Belford* a port, though at two or three miles distance from the sea ; this will be of glorious advantage to the town, and open markets for his coals at present unthought of. In a word, this active genius is daring and comprehensive in his ideas, penetrating and spirited in the execution.

At the same time that he has effected these noble works, he has not been idle in other respects. He has built a very handsome mansion-house for his own residence, raised numerous plantations, and erected seven new farm-houses, with all the necessary offices, the whole substantially of brick and tile.

In the walk of husbandry he has tried some experiments, which deserve attention : Much of his land is so wet as to require draining ; his method of doing which is as follows : While the field is in tillage, he marks out the low places, where the water lodges, with sticks, and then, with a plough, throws the land *from* the low space ; by beginning at a certain distance, five or six yards for instance from the bottom of it, and continually turning the furrows from it, until the plough finishes in the middle, and consequently leaves an open furrow there ; by which means a drain is made for the water, which carries it off with a little opening by spades :—And
after-

afterwards laying the field down to grass, the land has a fall that keeps it dry. This method he follows, let the inequality of the surface be what it may; for if in any place the land lies in a round, an oblong, or a serpentine form, the plough moves according to the wave of the land, and always leaves a furrow in the lowest part.

This method of draining must certainly be most effectual in land so retentive of water as to hold it on the side even of an open drain; and when, consequently, the surface must have a fall to carry it off.

In the laying down to grass, Mr. *Dixon* is likewise very attentive to have it done in a neat and masterly manner. Of hay seeds he sows six bushels *per* acre, and eight pounds of *Dutch* clover, and also about a tenth of the whole of parsley, for the sake of his sheep. In 1759, four acres were plowed and sown, half with buck wheat, and half with pease; both were plowed in when in blossom, and winter fallowed after, and, in the spring, sown with grasses alone; five acres adjoining were sown also among barley, and another five without either corn or manure: The result of this experiment, which was very well imagined, was this, that, from the first year, to the present time, no kind of difference has been perceived. That, however, which was sown alone, would, without attention, have proved the worst;

worst; for the chick-weed came so strongly, that it threatened to destroy all the grasses; but a dairy of cows being turned in, they eat it up, by which means the grasses rose freely. As that part sown alone, in this experiment, was no better than the other, it is certainly so far conclusive against sowing alone, as a crop of corn is thereby lost, without gaining any thing in return.

Cabbages this Gentleman has also tried, and with great success. In 1766 he had an acre and half on a cold, wet, clay soil: It was well dunged, and plowed twice: Turneps the preceding crop. The cabbage seed was sown the beginning of *August* the year before, and the plants set out of the bed directly into the field, which operation was performed from the middle of *March* to the beginning of *April*. The rows were three feet asunder, and two feet from plant to plant, horse-hoed and hand-hoed as the weeds arose. This crop turned out but small in size, but was of excellent use for feeding the cows; they were given, with some hay, to the milch ones, the leaves stripped off. The butter and milk both exceedingly good, and finely flavoured.

In 1767 the same field was again planted with them; the management, in all respects, as before; the crop little better; but applied to the same use, and with equal success.

In

In 1768 four acres were planted, after oats; the soil, a rich loamy clay: The stubble was plowed in, and then the field dunged; after which it was plowed twice more, and planted, as in the other experiments. Part of the seed was sown before winter, and part in the spring: The cabbages from the former proved much the largest. Many weighed thirty, thirty-one, thirty-two, and thirty-three pounds and half, the average about fifteen pounds a cabbage.

Mr. *Dixon*, upon the whole, commends greatly the culture of this most useful vegetable, for the feeding of milch cows: He is determined to continue the cultivation of them for that purpose, having found them so peculiarly convenient, that a loss of cabbages would, in a great measure, be a loss of the winter's milk.

Since my first edition, he writes me thus: " My this year's crop, on the ground which you examined last year, in quantity about two acres, has turned out very beneficial; for, by the assistance of about two stone of hay daily, I have kept three cows in milk, equal to a summer's pasture, one fat heifer for a month, and a fat ox who feeds with the cows; about forty sheep eat up the refuse of the cattle, and it being now a hard frost, with snow on the ground, I feed seven ewes and their lambs on them, in my back-yard, which thrive extremely well; and I expect

pect they will last me till *May*. About a month ago I plowed over two acres of grafs with a paring sock for burning, as soon as dry, and on this land I intend to plant the same sort of cabbage as before, viz. the large *Scotch*, and also the same ground as was planted this last season, and give them the same culture."

This Gentleman is also particularly attentive to the management of his fences: His favourite hedge is the holly; he sows the seed in beds, and transplants them into rows for hedges; I measured some, that grew upon a moist soil, six feet high, in six years growth: It is indubitably the first of all fences, grows very thick, close to the ground, and is of so stubborn, prickly a nature, as to be impenetrable by man or beast.

White thorns he transplants at six feet high, and finds them to answer very well.

Upon the whole, Mr. *Dixon* has proved, by the noble and spirited manner in which he has not only increased the number of people on his estate, but advanced their interests, and by the sensible attention he has given to agriculture, that the nation at large, as well as this neighbourhood in particular, are greatly indebted to him for his judicious conduct in all matters of rural œconomics.

Mr. *Clarke*, of *Belford*, (one of Mr. *Dixon's* tenants,) is very famous in the North for his knowledge of mechanics. Among
other

other instances of his skill in this branch, his invention of a draining plough, which obtained a premium of 50*l.* from the Society, is one, which has made his name publick in other parts of the kingdom, besides his own neighbourhood.

But the grand machine upon which he most builds his reputation, is one for the threshing of corn: How far it will answer has not been tried, because the machine will not be produced until a subscription is filled.

The following are his proposals to the public: They certainly merit attention.

PROPOSALS for making by Subscription, complete Machines for Threshing CORN.

To the PUBLIC,

OF all the operations of the laudable profession of the husbandman, it is presumed none are performed less to his satisfaction and emolument, none more detrimental to the public, and more oppressive to the poor labourer, than that of threshing corn. The difficulty of finding people disposed to undertake this drudgery, the large expence, and unavoidable waste that attends the present method of threshing corn; and the disappointments that are met with by not having grain ready in due time for seed, and other occasions, are losses and embarrassments that the most circumspect farmers hitherto have not been able to prevent; and as corn is not marketable until it is threshed, the public have undoubtedly felt some of the effects of scarcity on that account. The
threshers

threshers themselves, although near a twentieth of all they thresh is allowed them for their labour, are in general so overwhelmed with poverty and distress of body, that they are of all the honest labourers in the country the most miserable: These facts, taken together, incontestibly prove, beyond the force of custom, ignorance, and malice, that the present method of doing this necessary work, is not only prejudicial to individuals, but also a very great public grievance. And that therefore any contrivance, which would render the labour tolerable, and put it in the power of all occupiers of corn farms to have their corn separated from the straw, in such quantities, and at such times as they think proper, at a moderate expence, cannot but meet with a candid reception.

Cutbert Clarke, of Belford, in the county of Northumberland, thinking the above considerations well worthy his intention, has employed his utmost efforts to accommodate the public with machines for the above purpose; and flatters himself, that the machine he has contrived will, upon trial, meet with approbation, as it will make great dispatch, be very simple, commodious, and durable*. And in order to make it come as cheap as possible to the subscribers, he intends to furnish them on the following terms, and free of the common additional expence of a patent.

* It is impossible precisely to compute the time such a machine may last, but in all probability it will thresh annually all the corn produced upon a two hundred pound corn farm, and last thirty years for about ten shillings a year repairs. It may be conveyed any distance by two good carts, and may be placed or set up in two days time, by any country Wright who can follow directions.

C O N D I T I O N S.

1. This machine shall, in ten hours, worked by one horse, (with a boy to drive, and a man to feed the machine, clear off the straw, &c.) fairly thresh as much corn as what is usually estimated the work of eight men for that time, in the common way of two threshing together.

2. In order that this machine may be both lasting and generally useful, the inventor engages as follows: First, That all its parts shall consist of good materials, which shall be duly proportioned to their various uses. Secondly, That the whole process of separating the grain from the straw, shall be rendered so plain and easy, that a common labourer may be trusted with the full management of it. Thirdly, That the construction shall be such as may be contained, and conveniently worked within a common barn, with the addition only of a small hovel against one side of it.

3. A trial of one of these machines is intended to be at *Belford* afore said, before all, or as many of the subscribers as can attend, within one month after fifty subscriptions are completed, of which particular notice will be given.

4. If at this trial it is fully proved, that the machine answers the conditions before mentioned, and security is given, that each subscriber shall in his turn (according to the method the subscribers appoint for distributing them) have a machine delivered to him, or order, at *Belford*, every way as good as the trial machine; each of the subscribers shall then pay the sum of 5*l.* in part of 42*l.* the full consideration-money for one complete machine. The remainder of the said sum of 42*l.* to be paid at the delivery of each machine, by the person that receives it.

N. B. The

N. B. The inventor having been informed, since proposals for making the above-mentioned machines have been delivered, that many people, whose concerns in the farming-way are small, are very desirous of having machines, for the above purposes, of smaller dimensions and price: He, therefore, to suit them, and others, who rather incline to have small machines, has, upon the same principles, constructed a machine with which two men, without any other assistance, with ease, may in ten hours fairly thresh as much corn as is usually estimated the work of four men for that time, in the common way of two threshing together: And intends to make these smaller machines by subscription, exactly on the same conditions with the large machines, except that the price of them is only to be 22 £ each, and the part of that sum, which is to be advanced at the trial of the machine (which will be at the same time the large machine is tried) is only to be 3 £. The small machines, without disengaging any of their parts, may be transported from one place to another; and will probably last as long as the large machines, and may be kept in repair at a proportionable expence.

All Gentlemen, &c. who intend to encourage this design, by subscribing, and have not an opportunity of meeting with the inventor, are desired to acknowledge it by letter (signifying at the same time which of the machines they chuse) directed to him at *Belford*.

Mr. *Clarke's* method of cultivating turneps, is peculiar: He sows them broad cast, and cuts them with a horse-hoe, without a mold board, into rows, fourteen inches asunder,

asunder, then with hand-hoes he sets them out into squares of fourteen inches, and after that, with a double mold board plough, earths them up, and finds the crop much better than in the common method, and the land left in finer order.

An experiment he tried of the effect of electricity on vegetation, deserves attention ; he planted two turneps in two boxes, each containing 24 *lb.* of earth : He kept them in the same exposure, and all circumstances the same to each, save that one was electrified twice a day, for two months, at the end of which time it was in full growth, the skin bursting, and weighed 9 *lb.* The other, at the end of *four* months, did not quite reach that weight : A strong proof that the electric fire had a remarkable power in promoting and quickening the vegetation.

An excellent invention, in the mechanical way, by this ingenious husbandman, is that of a turnep slicer :

DESCRIPTION of a MACHINE to Slice
TURNEPS, for feeding Neat Cattle, &c.

P L A T E I.

Figure 1. is the perspective of the whole machine, which is about four feet six inches high, two feet six inches long, and two feet wide outside measure ; it is made of common deal, three quarters of an inch thick, and its four posts are of oak, about four inches square ; the feet, handles, sliding frame, cross bars, &c. are also of oak : The whole

machine can be afforded complete for two pounds two shillings, which will, with two men, slice three tons of turneps, into slices of three quarters of an inch thick, in one hour. It is also portable, and may, by the two men who work it, be moved from one house or field to another, borne by two handles like a sedan chair. A. A. the hopper, or trunk of the machine, which is angular within, suited to the angle the knife, when placed in its frame, fig. 2. d. A. d. makes with the sides thereof. B. B. B. B. the frame which slides to and fro upon two rollers, D. D. which greatly abate the friction. E. E. two strong leather strops, which stop the slider at each end alternately; one end of each of those strops is fastened to the cross bars, F. F. and the other ends to the rounds, B. B. B. B. fig. 2. in the notches, C. C. with a buckle, and may be taken up or let out occasionally. C. C. in fig. 1. are the two handles for carrying it by from place to place. G. G. feet morticed upon the four posts, which secure it from falling. H. H. Two cross bars between those feet. Fig. 3. the knife, with two edges, which being turned with its claws, b. b. &c. at right angles to its own plane, is put into the mortices, d. d. In fig. 2. the screw-pins, with the hand nuts, C. C. tighten it in the frame; and fig. 4. which represents a collar of iron, about a quarter of an inch thick, of which there are about eight in number for the two claws; their uses are to put between the shoulders of the knife, and the upper sides of the frame, and are put in number, as the edge of the knife is required to be raised above the floor of the slider, in order to size the slice, i. e. they are put on the upper side of the frame to make the slice thick, and removed from that side, and put between the hand-nuts and under-sides

desides of the frame, when the slice is to be thinner, in proportion thereto. The slice is cut exactly as a carpenter's instrument, called a spook-shave, &c. takes its shaving, only the turnep-knife cuts both backwards and forwards. There is also a contrivance for cleaning the eye of the frame, A. fig. 2. when the knife is placed upon it, viz. when the slider is pulled, &c. as much to one end as the stop will admit, there is a piece of hard wood, nailed upon a cross bar, at I. fig. 1. which projects about an inch towards the inside of the machine, and is so thin as to ram in below the edge of the knife, whatever slice it is set to form, *for it is not so thick as the least slice the instrument can make, viz. half an inch*, and thereby clears the eye; at each end there is the same contrivance, which effectually prevents any interruption in the cutting. The way to use the machine is very easy and natural; for as soon as the hopper is filled at random, by throwing up a basket full at a time, two men set themselves down on stools, &c. placed conveniently, and put out their feet against the posts of the machine, then take the rounds in their hands, about the places marked B. B. B. B. in fig. 2. and so pull the frame backwards and forwards as abovesaid; and, from their position of body, they have great power, the extensors of the legs, thighs, back, and arms, being mutually employed in the same advantageous manner as in rowing a boat, &c. The knife, at every push, &c. passes quite through the hopper into a cavity in the end, where no turneps can enter, because it is not above two inches high, and exactly as wide as the knife is broad; indeed, if the turnep is so small as to go into these dimensions, it will be driven in undoubtedly, but will be sliced by the knife as nicely

as if four times as large. The intention of these cavities, of which there are one at each end of the hopper, are to let the knife pass into them, as abovesaid, in order to let the turneps, which are in the hopper, fall flat upon the floor of the slider, and then the edge of the knife, which is next to them, as soon as it emerges out of the cavity, bites the turneps, and takes a slice of any thickness, from half an inch to one inch three quarters at pleasure, the whole width and length of the hopper at one stroke, and the same in its return. In short, this machine makes great dispatch, does the business very neatly, and with an inconceivable degree of ease; is very simple, and not at all liable to be out of order, otherwise than what the grinding-stone can readily rectify. And although some people have undertaken to shew, that turneps need no slicing, it must be acknowledged, that, where so great dispatch can be made, this, or any other instrument which does the business as well, and comes at so low a price, will make a profitable return to the occupier, in as much as, by its means, the risque of choaking is entirely superseded, waste prevented, and cattle, which have not been accustomed to eat turneps, entered immediately to feed upon that valuable esculent; and also makes the feeding of those cattle, which even take to eating turneps unsliced, less difficult, and they feed with greater expedition, because when the turneps are properly sliced, an ox, &c. will fill himself in half the time it will take him to do it when he has the turneps to break with his mouth, which is so painful an operation, as often to make the mouth bleed, swell, &c. which deters them from eating until they are near starving.

At

Fig. 1.

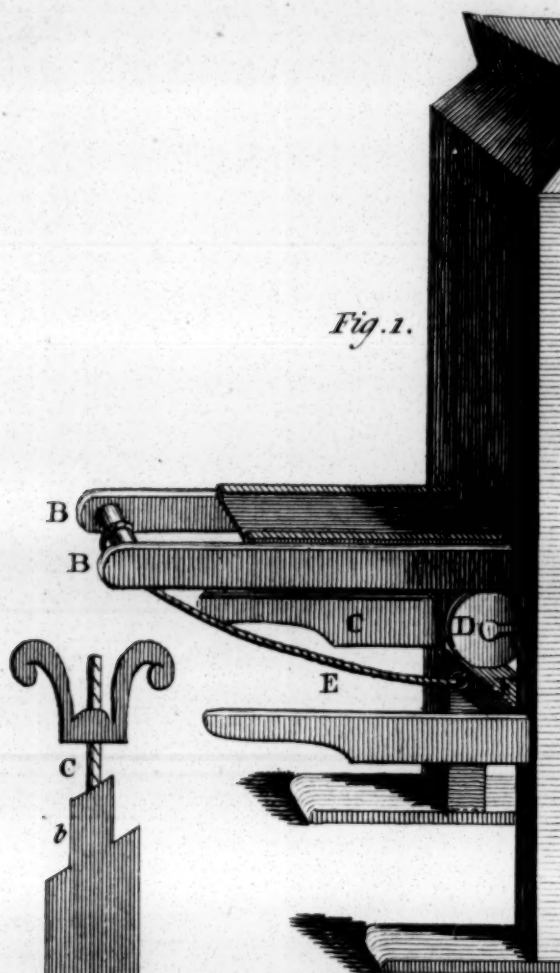
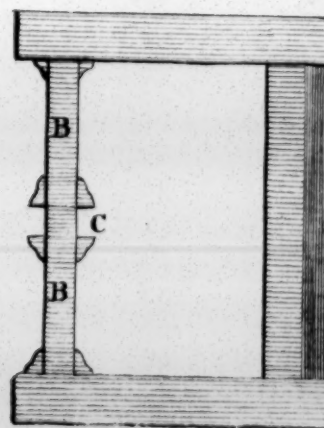
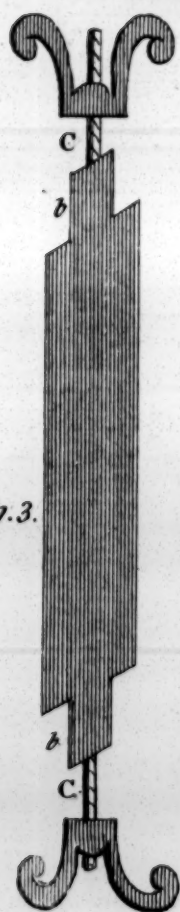


Fig. 3.



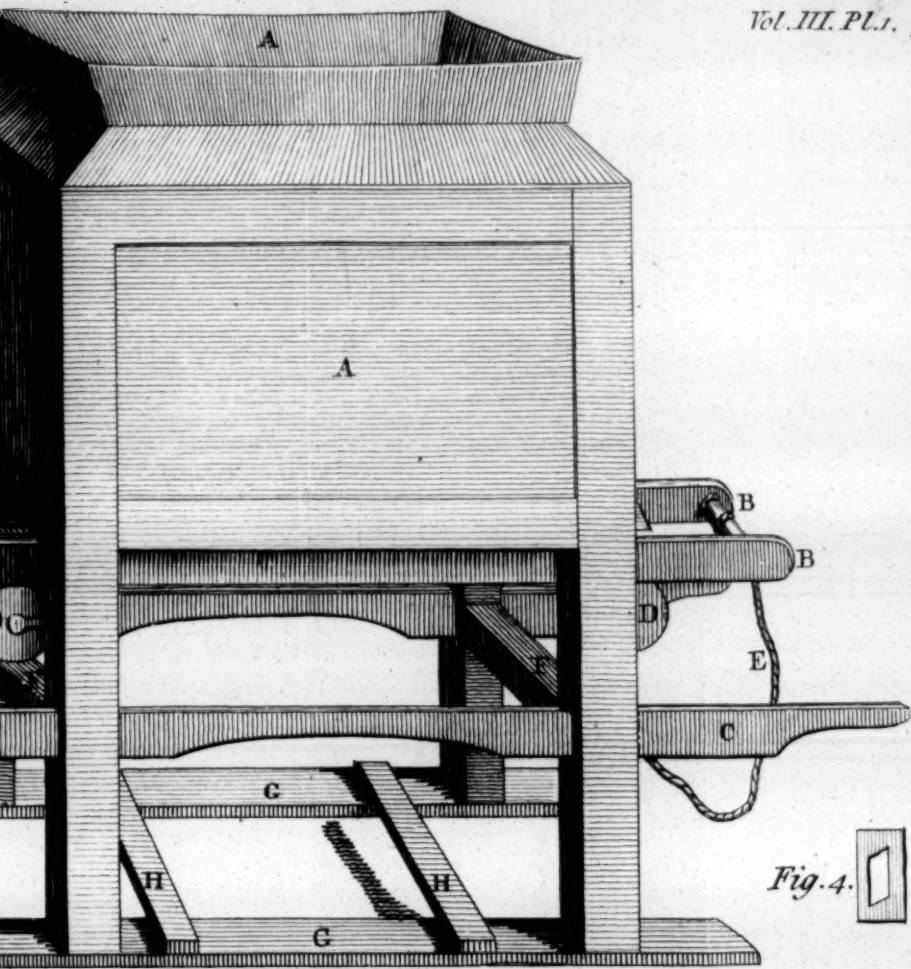
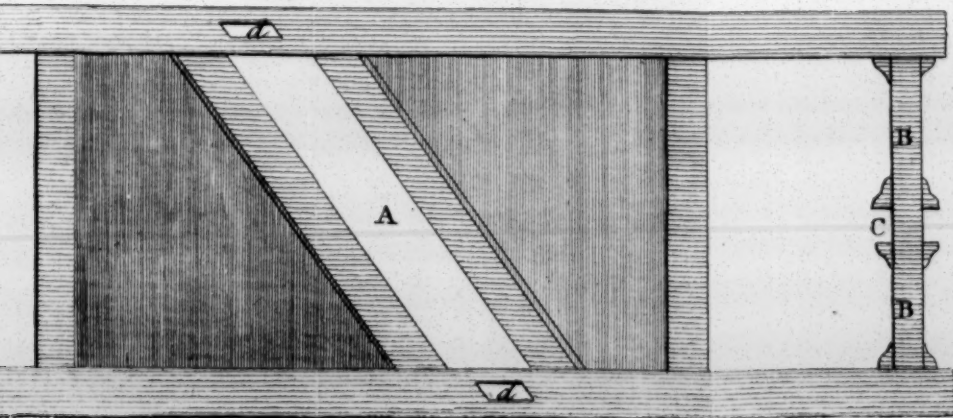
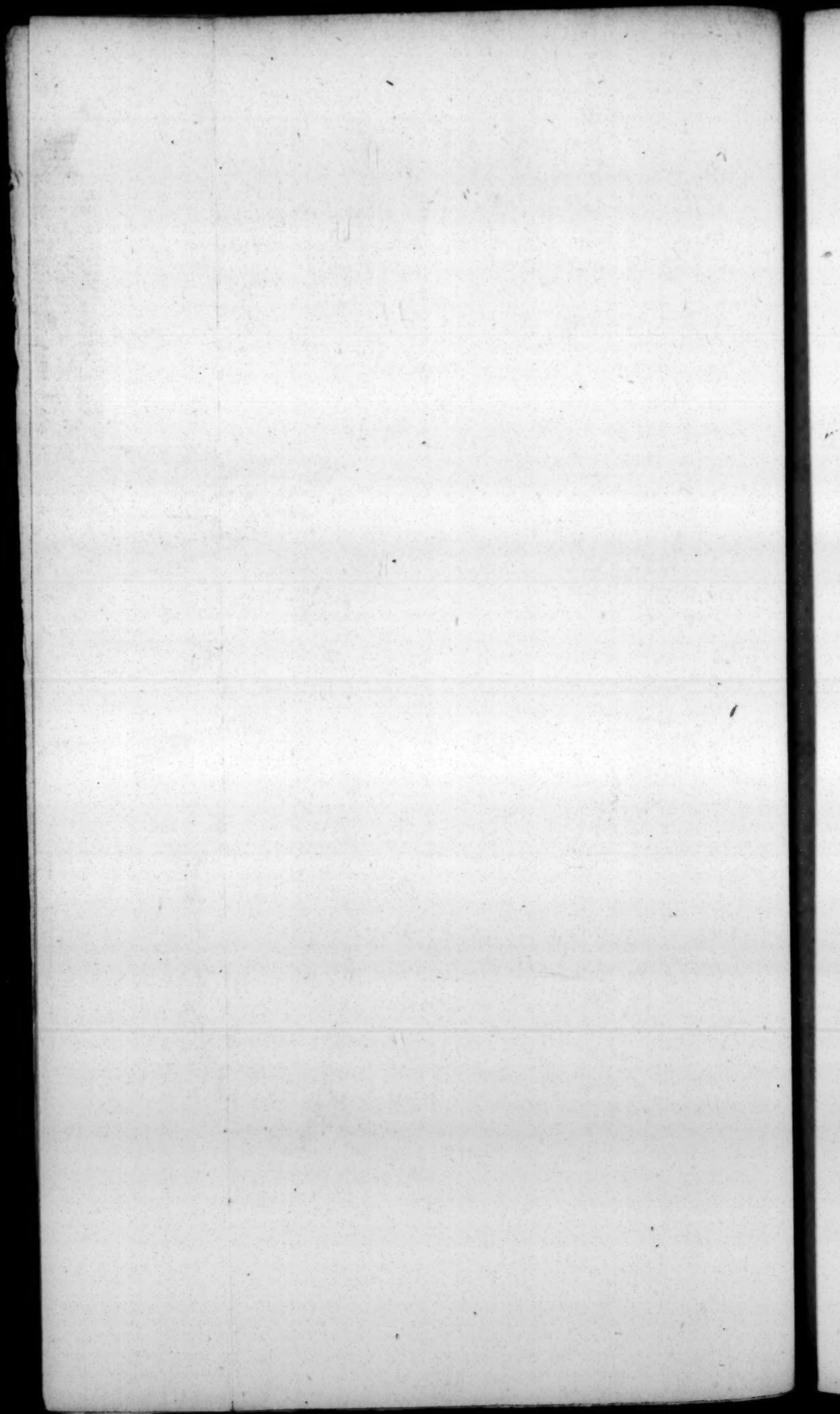


Fig. 2.





At *Waren*, near *Belford*, have been some improvements of moor land, which deserve mention. The soil is a black, rotten, boggy, peat earth, letts at 1*s.* 6*d.* an acre. They plow it up in *October*, and let it lie all the succeeding summer without touching, and likewise the winter, when they lime it: Of this manure they reckon too much cannot be laid on; generally ten or twelve fother, at twenty-four bushels each, which costs 3*s.* 6*d.* a fother, besides leading, which is 6*d.* Some few from twenty to thirty. After this liming they cross plow it, and harrow it three or four times; then sow turneps, which, if well sown, want, according to their notions, no hoeing. They are worth, upon a medium, about 50*s.* *per* acre. After these turneps they plow once and sow oats, four bushels to the acre, and gain a crop of about twenty-eight or thirty. This crop is succeeded by a second of oats, managed as before, and the produce much the same: After this comes a third, as before; but it seldom yields above twenty bushels *per* acre. After this, they fallow and lime it, and sow turneps, which are not worth above 25*s.* an acre. Next come oats, of which they do not get above sixteen bushels; they sow some ray grass, and a few other seeds, which may make the field worth 5 or 6*s.* an acre, for five or six years: They use it for cows

and sheep. A worse system cannot well be conceived.

But what inexhaustible funds of fertility must this black soil be possessed of, to bear such execrable treatment, and yet turn out a pasture worth a farthing an acre: Forcing the land with so much lime, cropping it with perpetual exhausting ones, and then leaving it in so slovenly a manner, all prove that this neglected moory soil is, in reality, the richest in the world.

At *Hetton*, a few miles west of *Belford*, the husbandry varies much. The soils are light loams, and rotten, black, moory land; let from 1*s.* 6*d.* to 15*s.* an acre; average, about 6*s.* 6*d.* Farms rise from 100 to 700*l.* a year, but are, in general, from 2 to 300*l.* Their courses are,

- | | |
|------------|----------------|
| 1. Turneps | And, 1. Fallow |
| 2. Barley | 2. Wheat |
| 3. Clover | 3. Pease |
| 4. Oats. | 4. Wheat. |

They plow six times for wheat, sow two bushels in *October*, and do not reap, in return, above ten, upon an average. For barley, they plow once or twice, sow three bushels in *April*, and gain, in return, about twenty-four. For oats, but one plowing, sow six bushels before barley, and reckon the medium crop at thirty. For beans, (of which they sow but few,) they plow but once, sow three bushels and an half, broadcast,

cast, never hoe them, and gain about eighteen ; use them for horses. For pease, also, one plowing, sow four bushels, and gain fifteen. They give four earths for turneps, hoe them twice; the medium value *per* acre, 55*s*. they use them for sheep only.

Clover they sow with barley ; both mow and feed it : If the former, they get about a ton and an half *per* acre.

As to the management of their manure, they stack their hay, in general, in the farm yard, except what is used for sheep ; but know nothing of chopping stubbles for littering the farm yards. They lime a great deal; lay six cart loads on an acre, or one hundred and twenty bushels, which costs 3*s*. 9*d*. *per* load, besides the leading. In the burning of lime, one load of coal burns two of lime.—They never fold their sheep.

Good grass land lets at 20*s*. an acre. They use it chiefly for fattening beasts, one acre and an half will fat one of seventy or eighty stone ; and an acre feed four sheep. They very seldom manure it.

Their breed of cattle is the short horned, both for fattening and milking. The product of a cow they reckon at 4*l*. 4*s*. a good one will give five gallons of milk *per* day : They feed them in winter upon both hay and straw ; of the first of which a cow eats from one and an half to two tons, and always feed in a house. Of swine they generally

keep one to two cows. Their calves do not suck at all, but are brought up by hand; three months for rearing, and six weeks for the butcher. A dairy maid will take care of twelve cows. The summer joist is 35 s. and the winter's the same.

The profit of fattening an ox of seventy stone they reckon 50 s.

Swine they fat from ten to twenty-four stone.

Their flocks of sheep rise from three hundred to two thousand, and reckon the profit of all sorts, one with another, at 5 s. *per sheep per annum*. They keep them in winter and spring upon their sheep walks and turneps; of the latter they keep some to the end of *April*. The average weight of fleeces 7 lb. and value 7 d. *per lb*.

They constantly salve all sheep in *October*, with tar and butter; two gallons of tar and a firkin of butter, melted together, will do one hundred and twenty. They reckon this method keeps them free from the scab, warm in the bad weather, and also makes the wool grow.

In their tillage they reckon twenty horses and as many oxen necessary for the management of five hundred acres of arable land; they use in a plough two horses and two oxen, but in some lands only two horses, which do an acre a day in summer, but only three roods in winter: They allow their
horses

horses two bushels of oats a week *per* horse, and reckon the annual expence *per* horse at 6*l.* 6*s.* The winter food of their oxen is straw and some coarse hay; and they calculate the whole annual expence at less than 50*s.* but horses are the best, though not in proportion to the expence. The time of breaking up the stubbles for a fallow is the beginning of *March*; and the price *per* acre of plowing 5*s.* They cut from five inches deep to ten in light loams. They know nothing of cutting straw into chaff. The hire of a cart and three horses is 7*s.* a day.

In the hiring and stocking farms they reckon for the taking one of 500*l.* a year, that from 1500 to 2000*l.* is necessary.

Land sells at thirty years purchase. There are many freeholds from 50 to 300*l.* a year.

Much land in this neighbourhood tythe free.

Poor rates in general low, from nothing up to 2*s.* in the pound. The poor women and children in total idleness. They do not drink tea, but smoke tobacco unconscionably. The farmers carry their corn seven miles.

The general œconomy of the country may be seen from the following particulars of farms :

2500.

2500 acres in all
 1250 arable
 1250 grafs
 £.650 rent
 22 horfes
 30 mares and foals
 24 oxen
 4 cows
 40 fat beafts
 40 young cattle
 2000 ſheep
 1 man
 2 maids
 35 labourers
 10 ploughs
 7 carts.

Another,

2500 acres in all
 1000 arable
 1500 grafs
 £.700 rent
 15 horfes
 16 oxen
 7 mares and foals
 12 cows
 45 young cattle
 2000 ſheep
 2 men
 2 maids
 20 labourers
 5 ploughs
 6 carts.

Another,

1100 acres in all
 800 arable
 300 grafs
 £.300 rent
 20 horfes
 8 oxen
 5 mares and foals
 6 cows
 50 young cattle
 1000 ſheep
 4 men
 2 boys
 2 maids
 16 labourers
 6 ploughs
 6 carts.

Another,

1000 acres in all
 500 arable
 500 grafs
 £.320 rent
 14 horfes
 12 oxen
 8 mares and foals
 5 cows
 20 young cattle
 1000 ſheep
 2 men
 2 maids
 8 labourers
 4 ploughs
 4 carts.

Another,

700 acres in all

500 arable

200 grafs

£. 160 rent

12 horfes

12 oxen

6 mares and foals

6 cows

20 young cattle

500 ſheep

3 men

1 boy

2 maids

10 labourers

3 ploughs

3 carts.

Another,

700 acres in all

100 arable

600 grafs

£. 200 rent

9 horfes

8 oxen

3 mares and foals

6 cows

12 young cattle

700 ſheep

1 man

2 maids

6 labourers

2 ploughs

2 carts.

Another,

240 acres in all

30 arable

210 grafs

£. 75 rent

3 horfes

5 mares and colts

4 cows

6 fatting beaſts

400 ſheep

1 man

2 maids

3 labourers

1 plough

1 cart.

Their moor huſbandry is as follows : They plow it up in *October*, four inches deep, and let it ſo remain till the *October* following, then they plow it again, and ſummer fallow the land, and lime it, the quantity before mentioned, and ſow turneps ; the crops of which are worth, upon an average, about 50 s. to 3 l. an acre upon dry land : After theſe

these they sow oats, and get about forty bushels *per* acre, and with them sow down ray grass, three bushels *per* acre ; after which the land would lett for 4 s. 6 d. *per* acre, and will last seven years. After this they break it up again, and take two crops of oats and turneps, but not near so good as at first ; then they lay it down again. This process is upon dry soils ; if they are wet, they do not think them worth meddling with.

Mr. *John Wilkie*, of *Hetton*, one of the most considerable farmers in this county, has tried carrots with success ; he sows them the end of *March*, on a light loam, hoes them twice, to the distance of five inches asunder : They grow to the size of a man's wrist, and twelve inches long ; all cattle are very fond of them, particularly hogs. Mr. *Wilkie* has found them extremely profitable.

L A B O U R,

In harvest, 1 s. 6 d.

In hay time, 1 s. and ale.

In winter, 9 d.

Mowing grass, 2 s.

Hoeing turneps, 4 s. 6 d.

New ditching, 1 s. 2 d. a rood.

Thrashing, the twenty-fifth.

Head man's wages, 10 l.

Next ditto, 7 l.

Lad of ten or twelve years, 5 l.

Maids, 50 s.

Women

Women *per* day in harvest, 1 s.

In hay time, 6 d.

In winter, 4 d.

I M P L E M E N T S.

No waggons.

A cart, 7 l. 7 s.

A plough, 1 l. 8 s.

A harrow, 1 l. 1 s.

A roller, 5 l.

A scythe, 3 s.

A spade, 3 s. 6 d.

The laying the shares and coulter, and keeping the ploughs, &c. in order, also the carts, and shoeing the horses, the blacksmiths do for 20 s. a horse, and the iron: If iron is not found, 40 s.

P R O V I S I O N S.

Bread — Barley and pease.

Cheese, 2 d.

Butter, 5 d. 16 oz.

Beef, 3 d.

Mutton, 2½ d.

Veal, 2 d.

Pork, 3 d.

Milk, ½ d. a quart.

Potatoes, 1 s. 2 d. a bushel.

Candles, 6 d.

Soap, 6 d.

Labourer's house rent, 10 s.

—— Firing, 15 s.

—— Tools all found.

BUILD-

B U I L D I N G.

Bricks, 10 s.

Tiles, 40 s.

Oak, 1 s. 6 d.

Ash, 1 s.

Mason *per* day, 1 s. 6 d.

Carpenter, 1 s. 6 d.

Thatcher, 1 s. 6 d.

Farm houses of stone.

From *Belford* to *Berwick* land letts upon an average at 12s. an acre, farms from 100 l. to 500 l. a year. Their wheat crops amount to twenty-four bushels *per* acre on a medium; barley thirty-six, and oats as much. *Berwick* has nothing more worthy notice than its bridge over the *Tweed*.

P R O V I S I O N S.

Bread, 10 oz. wheaten,	-	1 d.
Other ditto, 14 oz.	-	1
Butter, 18 oz.	-	6
Mutton,	-	2½
Beef,	-	3½
Milk, <i>per</i> pint,	-	½
Potatoes, <i>per</i> bushel,	-	2s.
Candles,	-	5½
Soap,	-	6
Labourers house-rent,	-	20s.
———— firing,	-	25s.
Labour as at <i>Belford</i> .		

From

From *Berwick* to *Wooller* land letts upon an average at 9s. per acre; farms from 200*l.* to 1000*l.* a year.

About *Fenton*, near *Wooller*, the soil in the vales is a sandy loam of two feet depth, but upon the higher lands it is not more than from three to six inches deep. Letts from 2s. 6d. to 12s. and some to 20s. an acre.

Farms from 100*l.* to 2000*l.* a year.

Their courses are,

- | | |
|------------|------------|
| 1. Turneps | 3. Oats |
| 2. Barley | 4. Oats. |
| 3. Oats | And, |
| 4. Pease | 1. Turneps |
| 5. Wheat. | 2. Barley |

Also,

- | | |
|-----------|-----------|
| 1. Fallow | 3. Pease |
| 2. Rye | 4. Wheat. |

This is a very good course.

They stir for wheat three or four times, sow three bushels in *October*, and reap upon an average three quarters. For barley they plow once, sow three bushels and a half about the middle of *April*; and reckon the mean produce at three quarters and a half.

For oats they plow but once, sow six bushels before barley, and gain in return, from four to six quarters. Beans and pease they mix, and sow of them four bushels on one plowing, broad cast; never hoe them; the crop about twenty-five bushels. For
pease

pease they give but one plowing, sow three bushels and an half, and get twenty in return. For rye, after turneps, they plow but once, after a fallow three or four times, sow two bushels, and get thirty. They stir for turneps three or four times, hoe once, in common, and sometimes twice; the average value *per* acre, 50 s. They use them chiefly for feeding sheep.

Clover they sow with barley, and mow it for hay, of which they get about two tons *per* acre; and sow oats after.

In the management of their manure in the farm-yard, they have only such as they make from feeding their hay and straw, as they stack the former not in the fields, but in the farm-yards. They know nothing of chopping stubbles. Of lime they lay from three to eight loads, thirty bushels each; it costs 4 s. a load, besides the leading. They never fold their sheep.

Good grass land lets at 20 s. an acre; they apply it chiefly to breeding. An acre and a half will feed a cow, and one acre keep four sheep: They never manure it. The breed of their cattle is the short horned, which they prefer to any other; their oxen are very large, and fat to one hundred and fifty stone. They reckon the product of a cow at 3 l. They give about four gallons of milk *per* day: They keep about two pigs to a cow. The winter food of their cows,
straw

straw and hay; of the latter of which they generally eat about two tons each. The winter joist is 25*s.* and the summer, 30*s.* They do not let their calves suck at all, but feed them by hand, from three to five weeks, for the butcher, but half a year for rearing. They keep their cows all winter in the house.

Their flocks of sheep rise from five hundred to ten thousand; and the profit of them they calculate at 8*s.* in the vales, and 3*s.* upon the hills. The winter and spring food are the commons; but they give some hay in very stormy weather: The weight of the fleeces from three to seven pounds in the vales, and from two to four on the hills, and from 6*d.* to 9*d.* price.

Very large stocks of ewes are milked after the lambs are weaned, from six to ten weeks: They make the milk into butter and cheese, the amount of both which may be about 2*s.* a head: The butter is all used in salving them; the cheese sells so high as 4*d.* a pound. The hinds wives milk them. This is but a paltry affair.

In their tillage they reckon twenty horses and sixteen oxen necessary for the management of five hundred acres of arable land; their draught two horses and two oxen, which do an acre a day. Their allowance of oats *per* day is half a peck, and they reckon the annual expence of a horse at 5*l.* The summer joist of a horse is 25*s.* The

winter food of the draught oxen, straw and hay, but never work on straw alone: They prefer horses so much, that oxen are going out of use by degrees. The time of breaking up their stubbles is at *Candlemas*; from four to seven inches deep; the price of ploughing from 3*s.* 6*d.* to 5*s.* And that of a cart, three horses, and driver, 4*s.*

They know nothing of cutting straw into chaff.

They calculate, that a man who hires a farm of 500*l.* a year, should have from two to 3000*l.*

Land sells at thirty years purchase: Very few small estates.

Tythes in general compounded.

It is not the custom for the farmers to raise any thing, by way of rate, for the maintenance of their poor, but each keeps his own share: As to the expence, it scarcely amounts to a farthing in the pound. The poor women and children have no employment. They are not tea-drinkers, but smoke tobacco immoderately.

The farmers carry their corn eight miles.

The œconomy of their farms may be seen from the following sketches.

6000 acres in all	80 oxen
2000 arable	30 cows
4000 grafs	200 young cattle
£.1050 rent	8000 sheep
100 horses	12 men
	6 boys

6 boys	20 oxen
6 maids	20 cows
80 labourers	80 young cattle
15 ploughs	2000 sheep
20 carts.	2 men
Another,	2 boys
5000 acres in all	2 maids
1500 arable	25 labourers
3500 grafs	8 ploughs
£. 1500 rent	10 carts.
80 horses	Another,
60 oxen	1000 acres in all
30 cows	400 arable
150 young cattle	600 grafs
2000 sheep	£. 500 rent
3 men	20 horses
3 boys	16 oxen
4 maids	8 cows
50 labourers	60 young cattle
15 ploughs	800 sheep
20 carts.	3 men
Another,	3 boys
2000 acres in all	2 maids
500 arable	16 labourers
1500 grafs	1 waggon
£. 700 rent	7 carts
20 horses	8 ploughs.

L A B O U R.

In harvest, 1s. 6d.

In hay-time, 1s. 6d.

In winter, 1s.

F 2

Mow-

Mowing grass, 1 s. 4 d. to 1 s. 6 d.

Hoeing turneps, 3 s. to 6 s.

Thrashing, the 25th part.

Head man's wages, 8 l.

Next ditto, 6 l.

Boy of ten or twelve years, 3 l.

Maids, 50 s. to 3 l.

Women *per* day, in harvest, 8 d. to 1 s.

In hay time, 4 d.

In winter, 4 d.

But I should here remark, that some of these prices respect only the hands which do not belong to the village; for their own labourers are not paid in money, but in what is called here *boll and stent*: That is, the farmer pays as follows. He keeps the man two cows; allows him sixty-six bushels of grain of all sorts; one stone of wool, (24 lb. to the stone;) leads his coals; finds him a house; half a rood of land for potatoes; keeps him a hog; and sows half a peck of flax for him: The wife has 5 s. for her hay and harvest; and a boy, when of twelve years of age, thirty bushels of corn.

I M P L E M E N T S.

A waggon, 18 l.

A cart, 7 l.

A plow, 1 l. 8 s.

A harrow, 18 s.

A roller, 3 l.

A scythe, 2 s. 6 d.

A spade,

A spade, 3 s. 6 d.
 Laying a share, 4 d.
 ——— a coulter, 4 d.
 Shoeing, 1 s. 4 d.

PROVISIONS.

Bread—pease and barley.
 Cheefe, - - - - - 2 $\frac{1}{2}$ a.
 Butter, 16 oz. - - - - - 5
 Beef, - - - - - 3
 Mutton, - - - - - 3
 Veal, - - - - - 2
 Pork, - - - - - 3
 Milk, three pints, - - - - - $\frac{1}{2}$
 Potatoes, *per* peck, - - - - - 3
 Candles, *per lb.* - - - - - 6 $\frac{1}{2}$
 Soap, - - - - - 6 $\frac{1}{2}$
 Labourers house-rent, 9 s. to 12 s.
 ——— firing, 20 s.
 ——— tools found by the farmer.

BUILDING.

Bricks, 12 s. 6 d. and very bad.
 Tiles, 45 s.
 Oak timber, 2 s. *per* foot.
 Ash, 1 s.
 A mason *per* day, 1 s. 6 d.
 A carpenter, ditto.
 Farm-houses of stone and tile.
 In the township of *Fenton* are
 1600 acres
 F 3
 2 farms

2 farms.
 1000 acres sheep-walk
 30 labourers
 34 horses
 30 oxen
 46 cows
 1150 sheep.

From *Wooller* I turned aside to go up *Ghevot Hill*, whose towering head invited me to the prospect, which I could not but suppose he must command. The height of this mountain is prodigiously great, and the view from it on all sides most extensive. I saw *Gateshead Fell*, near *Newcastle*, at the distance of fifty-five miles, and several objects in *Scotland*, beyond *Edinburgh*, as I was told.

Between *Wooller* and *Rothbury*, and also between *Alnwick* and *Rothbury*, are vast tracks of mountainous moors: Indeed, all the latter fifteen miles are absolutely uncultivated, except half a mile of inclosed valley about half way: The ling in vast tracks, high, thick, and luxuriant, and the soil a fine light loam: In some places black, but every where deep. I do not conceive that there is an acre of it, but what might be made, at a small expence, worth 8 or 10 s. for ever. What a field for improvement! What a noble source of riches and population! How much is it to be regretted, that such extensive tracks of land should remain in such a desolate condition, whilst
 the

the products of the earth sell at a beneficial price ; and while we hear such clamours among the people for want of a greater plenty of food.

About *Rothbury* the soil is both gravel, clay, sand, and moory ; the inclosures lett at 20*s.* an acre ; the moors at 1*s.* and afterwards at 2*s.* 6*d.* and more.

Farms rise from 50*l.* to 150*l.* a year.

The courses ;

- | | |
|-----------|------------|
| 1. Fallow | 3. Barley |
| 2. Wheat | 4. Oats. |
| 3. Barley | Also, |
| 4. Oats. | 1. Turneps |

And,

- | | |
|----------------------------|----------|
| 1. Turneps, fed
off for | 3. Oats |
| 2. Wheat | 4. Oats. |

For wheat after turneps they plow but twice ; after fallow three or four times ; sow two bushels an acre in *October* and *November*, and reap from sixteen to twenty. For barley they stir twice, sow three bushels the end of *April*, or the beginning of *May*, and reckon the average produce twenty-four bushels. They plow but once for oats, sow six bushels, before barley, and gain in return from forty to sixty. For pease they give but one plowing, sow two bushels, before barley, and get, upon an average, about ten bushels. They stir three or four times for rye, sow two bushels, and reap twenty.

For turneps they plow thrice, hoe them twice, and reckon the mean value *per* acre at 3*l.* use them for sheep and beasts. Potatoes they prepare for by both plowing and digging; if the former, they stir three times, and manure the land well: They lay the slices in the furrows, and hand-hoe them as the weeds rise, once or twice: They get eighty bushels off an acre, and reckon the crop very profitable: Wheat or barley after them.

Their chief manure is liming; they lay five load *per* acre, at twenty-four bushels *per* load, and generally on the fallow for turneps or wheat. Their hay they stack at home. Though improvers of moors, yet they know little of the paring and burning husbandry.

Good grafs will lett for a guinea an acre: They use it more for fatting beasts than for feeding cows: One acre of good grafs will carry a cow through the summer, or four sheep. The breed of cattle is the short horns, of which they feed oxen from sixty to one hundred and twenty stone.

They reckon the product of a cow at 4*l.* 10*s.* or 5*l.* and expect two firkins and an half of butter from each upon an average. A good one will give six or seven gallons of milk *per* day: One kept by Mr. *Whittam*, when he lived near *Rothbury*, gave, in common, twenty-four gallons a-day: A fact I much doubted, until the person who gave

me

me the intelligence called in two or three others to vouch for the truth of it. They keep about two pigs to five or six cows. The winter food is hay and straw, of the former about half an acre. The calves never suck at all, but are brought up by hand; for the butcher three weeks, and for rearing three months.

Their flocks of sheep rise from forty without right of commonage, to four thousand with; and they reckon the profit at 7 *s.* a-head; their common winter food is on the moors, but in deep snows they give them hay. Their fleeces run from 3 to 6 *lb.*

In their tillage they calculate four horses and four oxen necessary for the culture of an hundred acres of arable land. They use two horses and two oxen in a plough, sometimes only two horses, and do from half to three quarters of an acre a-day. They allow their horses three gallons of oats *per* week; and reckon the annual expence *per* horse at 6 *l.* Their draught oxen they feed on straw and hay in the winter. Horses they expect will do more than oxen, but the latter are much the cheapest.

They break up their stubbles for a fallow in *May*. The price of plowing is 3 *s.* 6 *d.* an acre, and the depth five inches. The hire of a cart for carrying coals is 5 *s.* a day, for working in the roads 3 *s.*

In

In the hiring and stocking of farms, they reckon that 350*l.* is necessary to stock one of 100 *l.* a year.

Tythes are generally compounded for in the total. Poor rates from 1*s.* to 1*s.* 10*d.* in the pound. The employment of the women and children is chiefly spinning wool.

The farmers carry their corn seventeen miles.

The general œconomy of the country will appear from the following particulars of farms.

450 acres in all	10 cows
250 arable	8 young cattle
200 grafs	200 sheep
£. 180 rent	1 man
9 horses	1 boy
8 oxen	1 maid
15 cows	1 labourer.
20 young cattle	
1000 sheep	Another,
1 man	130 in acres in all
3 boys	90 grafs
4 maids	40 arable
2 labourers.	£. 35 rent
Another,	5 cows
200 acres in all	4 horses
80 arable	4 young cattle
120 grafs	100 sheep
£. 70 rent	1 boy
4 horses	1 maid
2 oxen	1 labourer.

Another,

Another,

100 acres in all

50 grass

50 arable

£. 30 rent

4 horses

2 oxen

4 cows

8 young cattle

50 sheep

1 man

1 boy

1 maid.

L A B O U R.

In harvest, 1s. 4d. and 1s. 6d. and a dinner.

In hay time, 1s. dinner and beer.

In winter, 1s.

Thrashing, the 19th of all grain.

Head man's wages, 12l.

Next ditto, 8l.

Boy of ten or twelve years, 3l.

Maids, 3l. and 3l. 10s.

Women *per* day in harvest, 10d. and 1s.
and dinner.

In hay time, 6d. and dinner.

In winter, 4d.

P R O V I S I O N S &c.

Bread—barley and pease.

Cheese, *per* lb. 2 $\frac{1}{2}$ d.

Butter, 5d. 16 oz.

Beef, 4d.

Mutton, 3d.

Veal, 2d. and 2 $\frac{1}{2}$ d.

Pork, 3 $\frac{1}{2}$ d.

Milk, a pint, $\frac{1}{2}$.

Potatoes, 1s. twelve quarts.

Candles,

Candles, 7*d.*

Soap, 7*d.*

Labourers house rent, 10*s.* to 20*s.*

———— firing, 20*s.*

I M P L E M E N T S.

No waggons.

A cart, 5*l.*

A plough, 17*s.*

A harrow, 10*s.*

A scythe, 2*s.* 8*d.*

A spade, 3*s.* 6*d.*

Laying a share and coulter, 8*d.*

Shoeing, 1*s.* 4*d.*

B U I L D I N G.

Oak timber, 1*s.* 8*d.* *per* foot.

Ash, 1*s.* 6*d.*

Elm, 1*s.* 6*d.*

A mason, *per* day, 1*s.* 6*d.*

A carpenter, 1*s.* 6*d.*

Farm houses of stone.

From *Rothbury* I took the road to *Wol-
lington*; the soil various, much uncultivated,
though not so desert a track as the last. A
few miles before *Cambo*, there is a very fine
new-made lake of Sir *Walter Blacket's*, sur-
rounded by young plantations, which is a
noble water; the bends and curves of the
bank are bold and natural, and when the
trees get up, the whole spot will be re-
markably beautiful.

About

About *Cambo* the soil is chiefly clay and moory land, letts from 10 s. to 20 s. an acre. Farms from 30 l. to 100 l. a year. Their courses are,

- | | |
|-----------|-----------|
| 1. Fallow | 3. Oats |
| 2. Barley | 4. Oats. |
| 3. Oats | Also, |
| 4. Oats. | 1. Fallow |
| And, | 2. Rye |
| 1. Fallow | 3. Oats. |
| 2. Wheat | |

But not often three crops to a fallow, upon the whole.

They plow four times for wheat, sow three bushels in *October* and the beginning of *November*, and reap about twenty-four.

For barley, they stir four times, sow from four to five bushels in *April*, and reckon the average produce at thirty-five.

They stir but once for oats, sow seven bushels after barley sowing, and get upon a medium about fifty bushels.

For rye they plow four times, sow three bushels and an half (a vast quantity) and reap upon a medium eighteen bushels.

They give four earths for turneps, hoe them but once; and reckon the average value at 3 l. *per* acre: Use them for sheep, beasts, and cows.

Lime is their principal manure, lay a fother or ton *per* acre, that is, twenty-four bushels,

busshels, on fallow; the cost 2*s.* 6*d.* Their hay they stack at home.

Good grass land lets at from 20*s.* to 25*s.* an acre; they apply it chiefly to the dairy; an acre and half they calculate as a cow's summer's feed. Their breed of cattle is middling, between the long and short horned: Their oxen they fat up from fifty to one hundred stone, but generally sixty.

They value the product of a cow at 4*l.* 10*s.* or 5*l.* feed them in winter on hay and straw; of the former of which they eat about an acre and half, and always in a house. They keep three or four swine to ten cows. Their calves suck some three weeks or a month, and some not at all.

Their swine they fat from twenty to thirty stone.

About *Cambo* they keep no sheep, upon account of the white-thorn hedges in their new inclosures; but within a mile or two from an hundred to a thousand; the profit they reckon at 8*s.* *per* sheep: Keep them both winter and spring on the commons.

They calculate that six horses and six oxen are requisite for the culture of a hundred acres of arable. They use three horses in a plough, or two horses and two oxen, and do three roods a day. Their allowance of oats is two bushels of oats *per* horse *per* week; and reckon the annual expence at 6*l.* 10*s.* The time of breaking up their stubbles

stubbles for a fallow is in *March* or *April*. The price of plowing 3 s. an acre, and the depth five inches. The hire of a cart, three horses, and a driver, is 3 s. a day.

They reckon that a man should be worth 300 l. who hires a farm of 100 l. a year.

Tythes are taken in kind.

Poor rates 6d. in the pound; their employment knitting and spinning.

Twenty-one miles is the distance the farmers carry their corn.

The following sketches of farms will shew the general œconomy of the country.

200 acres in all	20 cows
150 arable	20 young cattle
50 grafs	2 men
£. 100 rent	2 boys
8 horses	2 maids
8 oxen	3 labourers.
12 cows	Another,
20 young cattle	90 acres in all
1 man	40 arable
2 boys	50 grafs
1 maid	£. 50 rent
2 labourers.	4 horses
Another,	2 oxen
300 acres in all	5 cows
150 arable	6 young cattle
150 grafs	1 boy
£. 140 rent	1 maid
10 horses	1 labourer.
8 oxen	

LABOUR.

In harvest, 1 s. and board.
 In hay-time, ditto.
 In winter, 8 d. and 10 d. and ditto.
 Head man's wages, 12 l.
 Next ditto, 8 l.
 Boy of ten or twelve years, 3 l.
 Maids, 3 l. to 5 l.
 Women *per* day, in harvest, 1 s. and dinner.
 In hay-time, 8 d. and ditto.
 In winter, 6 d.

IMPLEMENTS.

No waggons.
 A cart, 7 l. 10 s.
 A plough, 20 s.
 A harrow, 12 s.
 A scythe, 2 s. 6 d. to 4 s.
 A spade, 3 s. 6 d.
 Laying a share and coulter, 4 d. and iron.
 Shoeing, 6 d. and iron.

PROVISIONS, &c.

Bread—rye, maslin, and barley.
 Cheese, 2 d.
 Butter, 6 $\frac{1}{2}$ d. twenty-one ounces.
 Beef, 3 d.
 Mutton, 3 d.
 Milk, $\frac{1}{2}$ d. three pints.
 Potatoes, 1 s. 6 d. a bushel.

Labourers house-rent, from 5s. to 15s.

——— firing, 16s. *

The roads through Sir *Walter Blackett's* estate, which is of very great extent, are excellent; a piece of magnificence which cannot be too much praised. The country is all newly inclosed, and Sir *Walter's* hedges remarkably good; he seems very attentive to raise fine fences, for the white thorns are very regular, luxuriant, and kept perfectly clean from weeds. From *Wallington* to *Choleford Bridge* land letts from 10s. to 20s. an acre; farms from 100*l.* to 400*l.* a year.

From the latter place to *Glenwelt*, the country is all moor, but of an excellent

* *Wallington*, the seat of Sir *Walter Blackett*, is a large handsome house, which appears, from the disposition of the apartments, to be very convenient. We were shewn first into some common keeping ones, a library, dining parlour, &c. in which I remarked a piece of dead game, by *Hübener*, that was well done; and another of dancing dogs, grotesque enough. In the dining-room, of forty by twenty-one, the chimney-piece of white marble is handsome; the cieling of stucco work in scrolls, very light and pretty. Here is also another piece of dead game by *Hübener*, some of it well executed; and at the other end of the room the portrait of a *bat and ruffles*. Likewise a needlework screen of tent stitch, very elegant.

The saloon, forty by twenty-two, and a good height; a most elegantly proportioned room.

soil: And, what is astonishing, vast tracks of *level valley*, not *gills*, as they are called in the North; that is, narrow separations between the mountains, without level ground: And these breadths of flat soil are of an extraordinary depth and richness, and evidently want nothing but inclosing and draining to be made at once worth 30*s.* an acre; nor are these low lands of any trifling extent, but amount in quantity to some thousands of acres. It is amazing, that in a country, in which a free exportation of corn *was* allowed for so many years, such tracks of land should remain in so desert a state. What infatuation in the superior sort of cultivators, to pay so high for land, in so many parts of the kingdom,

The cieling and the whole very neatly worked in stucco: The former coved, the center an oblong of mosaics; and the cove, scrolls and festoons. The chimney-piece handsome, of statuary marble polished; in the center, boys gathering grapes, in relievo. The furniture of this room is very elegant. There are two slabs of beautifully veined marble, or composition; and under them very fine china jars. In one corner of the room is a noble china cistern. The two girandoles of gilt carving, for several candles, are exceedingly light and elegant; and the china jars on the chimney-piece, fine.

The drawing-room, thirty-four by twenty-two, hung with silk and worsted crimson damask. The cieling ornamented in stucco, with light scrolls, surrounding a center of boys emptying a *Cornucopia*. The chimney-piece of polished white marble,

while such fertile wastes remain uncultivated. Great part of this country is a green sward, or what in *Yorkshire* is called *White Land*.

About *Glenwelt* the soil is chiefly of three sorts, sand, gravel, and clay; letts from 5*s.* to 20*s.* an acre; and farms rise from 10*l.* to 50*l.* a year. Their courses are,

- | | |
|-----------|----------|
| 1. Fallow | 3. Wheat |
| 2. Wheat | 4. Oats. |

- | | |
|-----------|-------|
| 3. Barley | Also, |
| 4. Oats. | |

And,

- | |
|------------|
| 1. Turneps |
| 2. Barley |
| 3. Oats. |
| 1. Fallow |
| 2. Barley |

marble, with festoons of grapes, &c. Over it a landscape, architecture, and trees, in a light, glowing, brilliant stile; extremely pleasing, though not perfectly natural. Slabs very elegant, the glasses large, and the frames of both very neatly carved and gilt.

A dressing-room, twenty-one square; and a bed-chamber, twenty-two by twenty-one.

The new kitchen gardens are excellently disposed, kept in admirable garden husbandry, and the conveniency of water very great. The gardener's house is pleasantly situated on the banks of the river; and, from several very neat bow window rooms, an agreeable view of three water-falls in the river.

It will not here be impertinent to add, that Sir *Walter Blackett's* is the only place I have viewed, as a stranger, where no fees were taken.

They plow four or five times for wheat, sow three bushels either in *September*, *October*, or *November*; and reap at an average thirty bushels. For barley they stir two or three times, sow three bushels about the end of *April*, or the beginning of *May*, and get at a medium four quarters. They give but one ploughing for oats, sow six bushels before barley sowing, and get ninety bushels at a medium. For beans they plow but once after barley, sow five or six bushels before oats, never hoe, and get on good land so high as seventy bushels: They use them for horses, and some the poor grind for bread. They give but one stirring for pease, sow five bushels about the time of beans; and as to crop, sometimes they get thirty bushels, and at others not the seed.

They sow but little rye—the culture is, to plow four times, sow two bushels and a half, and the crop does not, upon an average, exceed thirty-five bushels.

Turneps are not much cultivated; but they plow five times for them, hoe them once, the average value *per acre*, 50s. and use them for oxen and sheep.

Clover they sow with barley; generally mow it twice for hay, get two tons and a quarter, and sow wheat after it.

For potatoes they plow four times, dung the land at the rate of twelve loads of long horse-dung, laying it in the furrows, and
the

the slices on it; twenty bushels plant an acre in rows, one foot asunder every way: They hoe them twice, and reckon the crop in general from two hundred to two hundred and forty bushels. They sow wheat or barley after them; but the land is in excellent order for any thing.

Lime is their principal manure; they lay about a hundred bushels *per* acre upon every fallow, which cost about 20 s. They have some little paring and burning. No folding of sheep. They stack their hay both in the field and at home. No chopping of stubbles.

Good grafs letts at 20 s. They use it both for fattening and milking, and reckon that an acre will carry a cow through summer, or five sheep; but they are tolerably careful in manuring it.

Their breed of cattle is between the long and short horns; the oxen fat to fifty stone; and they reckon the product of a cow at 4 l. they reckon that each makes three firkins of butter, and gives four gallons of milk a day; but nine gallons have been known. They keep very few swine to their cows, some none at all, others two, three, or four, to twelve cows. Their winter food, hay and straw, of the first of which they generally eat a ton. The calves do not suck at all to rear, but for the butcher, a month or five weeks. A dairy maid can take care of ten.

The winter joist 30s. and the summer the same. They keep them all winter in the house.

Their flocks rise from twenty to five hundred, and they calculate the profit of them at 5s. a head. Their winter and spring food the commons alone; and the weight of their fleeces on an average not above 3lb.

They reckon four oxen and four horses necessary for the culture of one hundred acres of arable land; use two of each in a plough, and do an acre a day: They allow each horse two bushels of oats a week; and reckon the annual expence of keeping, &c. at 10*l*. The summer joist is 3*l*. The winter food of their draught oxen is hay and straw, but they work them on straw alone: They reckon oxen much the best on stoney and on unlevel ground; but on other land horses. The time of breaking up their stubbles for a fallow is at *Candlemas*. Their depth of plowing four inches, and 6s. the hire *per* acre. That of a cart and horses 3s. 6*d*.

They reckon 400*l*. necessary for the stocking a farm of 100*l*. a year.

Land sells at from thirty to forty years purchase. Many estates from small rents to 100*l*. or 200*l*. a year.

Poor rates 1s. 6*d*. in the pound. The employment spinning and knitting. Very few drink tea.

The

The farmers carry their corn nine miles.

The general œconomy of the country will partly appear from the following particulars.

130 acres in all	10 cows
60 arable	22 young cattle
£.60 rent	5 fatting beasts
3 horses	300 sheep
3 oxen	2 men
9 cows	1 boy
20 young cattle	2 maids.
3 fatting beasts	Another,
100 sheep	80 acres in all
1 man	20 arable
1 boy	60 grafs
1 maid.	£. 35 rent
Another,	3 horses
200 acres in all	5 cows
80 arable	2 young cattle
120 grafs	20 sheep
£.80 rent	1 boy
4 horses	1 maid.
4 oxen	

L A B O U R.

In harvest, 8*d.* and board.

In hay time, 6*d.* and ditto.

In winter, ditto.

Thrashing, the twentieth.

Head man's wages, 10*l.*

Next ditto, 6*l.*

Boy of ten or twelve years, 20*s.*

A dairy maid, 5 *l*.

Other maids, 4 *l*.

Women *per* day in harvest, 8 *d*. and board.

In hay time, 6 *d*. and ditto.

In winter, 4 *d*. and ditto.

I M P L E M E N T S.

No waggons.

A one horse cart, 3 *l*. 10 *s*.

A plough, 25 *s*.

A harrow, 7 *s*. 6 *d*.

No rollers.

A scythe, 4 *s*. 6 *d*.

A spade, 3 *s*.

Laying a share and coulter, 6 *d*. and iron.

Shoeing, 2 *s*.

P R O V I S I O N S.

Bread — Barley and pease and beans, and oatmeal.

Cheese, 2 *d*.

Butter, 16 oz. 6 *d*.

Beef, 3 *d*.

Mutton, 2 $\frac{1}{2}$ *d*.

Veal, 2 *d*.

Pork, 3 *d*.

Milk, $\frac{1}{2}$ *d*. a pint, new.

Potatoes, six gallons, 8 *d*.

Candles, 6 *d*.

Soap, 5 $\frac{1}{2}$ *d*.

Labourer's house rent, 10 *s*. to 20 *s*.

———— Firing, 10 *s*.

BUILD-

B U I L D I N G.

Oak timber, 1 s. to 2 s. 6 d. *per* foot.

Ash, ditto.

Elm, ditto.

A mason *per* day, 1 s. 6 d.

A carpenter, 1 s. 6 d.

A thatcher, 1 s. and board.

Stone walling, 4 s. 6 d. a rood building, and from 1 s. to 2 s. 6 d. cutting; the common height seven quarters.

Some moor land is every year inclosed and improved in this neighbourhood: Their method is to plow it up in winter, to fallow it the succeeding summer, and lay ninety or a hundred bushels of lime *per* acre; they sow rye upon it, and get fifty or sixty bushels *per* acre: Then a second crop of rye, of thirty-five or forty bushels: Next oats, of which they have sixty or seventy bushels; with this crop some throw in a few grass seeds, but the most common method is to leave it to turf itself. They pay no rent of such land for the first seven years, but 10 s. an acre afterwards, for twenty-one years, or any other time.

Some pare and burn, but the number very few: They sow rye twice, and oats as in the other method: The crops of corn are better in the paring and burning, but they reckon the succeeding grass not so good. They always inclose before this improvement, as it is called.

Much

Much of their moory soil is the black rotten mossy land; but some of it white land, which is very good. The boggy parts they cut a few open drains through, to better the herbage, by laying it a little dry, but never attempt any other improvement. In many of these moors the soil is very deep, but in some places shallow, with the rock near the surface.

From *Glenwelt* I walked about half a mile to view some of the remnants of the famous *Roman* wall: The most perfect remain of it is on the edge of a rocky precipice, a piece about five feet high, and several yards long; the facing is of regularly cut free stones, but I measured none of them above thirteen inches long and seven broad; the mortar in the facing is quite gone, but much of it remains in the middle; very little of it is of that hard nature found in some ancient buildings, but crumbles with ease between the fingers. The stones of the facing are cut regularly and well laid; the workmanship undoubtedly very good. Not far from this wall the remains of an earth intrenchment, thrown up for the same purpose, are seen in a parallel line with it.

North from *Glenwelt*, about five miles on the river *Arden*, is a natural curiosity, highly worth viewing: It is a very fine rock of petrified moss. A dripping stream falls over a rock hung thick with moss, which petrifies,
and

and is taken from the rock in that state : It is soft at first, but hardens upon being dry, and remains in stone in a most beautiful pierced form. The rock itself is extremely beautiful, and hangs over your head in a picturesque grotto stile, quite romantic.

As I enter *Cumberland* to-morrow, you must permit me to conclude this letter with a few remarks on the husbandry in general of the extensive county of *Northumberland*.

The farms become large almost immediately on entering it, after the small ones of *Yorkshire* and *Durham*, and rise in many parts of it to be as great as any in the kingdom, if not the greatest ; but they must be divided into two classes, those which consist of cultivated lands, and others which are chiefly moor farms.

The husbandry of the first is much superior to that of the two preceding counties : and that not only in one or two trifling articles, but in many very important ones. Manuring is carried on with greater spirit ; lime is used in larger quantities ; and they understand better the management of the farm-yard manure. Hoeing of turneps is a pregnant instance ; I found it coming into practice at *Gosworth*, and all hoed about *Morpeth*. The potatoe culture is carried on upon a much larger scale : And, in short, the whole management better, and more spirited.

With

With the other class, this is not the case : The grand article of their agriculture is the improvement of moors ; and a more slovenly husbandry than theirs, in this branch, can no where be found. The plowing up wastes, without a previous inclosure, and breaking up the deepest soils, without paring and burning :—the sowing two, three, and even four crops of corn running, upon a ploughing up, and liming ;—the leaving the exhausted soil to turf itself, in some places, and only scattering a little ray grass in others ;—the keeping eight and ten thousand sheep, and never folding :—All these are strokes of barbarism, which tend to damp, and even extinguish the spirit of improvement, from the infallible want of success, and to the leaving a country, after what is here called improvement, in as miserable and waste a state as before it was begun.

The occupiers of large farms, who are consequently men of considerable substance, are, in most parts of *England*, the greatest of all improvers : Nature takes a new face under their hands ; whole counties are converted at once from deserts, into finely cultivated countries : But here we meet with no improvements that deserve the name ; nothing lasting ; three or four tolerable crops, and then the land left as desolate as ever, in the true spirit of a little paltry farmer of 20/, a year. Unworthy those who occupy as many hundreds !

While

While moors are thus *improved*, I do not much wonder at seeing so much waste land in *Northumberland*. But surely the landlords are strangely remiss, in not introducing better customs; letting no tracks without their being inclosed, and restraining their tenants from exhausting the soil by continued crops; obliging them, at the same time, to lay it down to grass, in a given manner: But this must be done by practising such methods themselves, that the success may justify the proposal: If the farmers of the country are, nevertheless, backward in following such examples, men of large estates can well afford the importation of others, from counties whose cultivators are more informed.

It is very melancholy to ride through such vastly extensive tracks of uncultivated good land, as are found in every part of this country: And it is equally unfortunate, that so many men of substance, in the farming way, should tread perpetually in the beaten route, and hire land, in so many parts of *England*, at an enormous rent, while such quantities are to be had almost for nothing. This is truly the *cultusque habitusque locorum prædiscere*.

Glenwelt.

I remain yours, &c.

L. E. T.

L E T T E R XVII.

FROM *Glenwelt* to *Brampton*, I passed over some moors of an excellent sandy loam, and yet quite uncultivated. The inclosed lands are good, lett from 10s. to 25s. per acre; farms from 10l. to 100l.

At *Carlisle* is a considerable stampery of printed cottons, established by some manufacturers from *Newcastle*; the labourers in it earn from 1s. to 3s. a day. Also a manufacture of checks, which employs many looms; the earnings from 1s. to 1s. 3d. a day*.

* Since the first edition of these papers, I have been requested, in an anonymous letter, to insert the following accounts.

Bowness, below Carlisle, in Cumberland.

Bowness, formerly called *Bulness*, which was the ancient town *Blatum*, or *Blatum Bulgium* of the *Romans*. It is seated on the *Solway Frith*; and by tracks of streets, and ruinous walls, do declare it to have been of good account. Several *Roman* coins and inscriptions have been found; and some years ago a small brazen figure was dug up, which was thought to represent either a *Mercury*, or a *Victory*. From being the principal town of a large manor, containing several hamlets, it is now reduced to a small village; but the mother church is still here.

Three miles to the south of *Carlisle*, land letts at about 15*s.* an acre at an average. Farms from 20*l.* to 200*l.* a year. In as many more, they are not so large, from 30*l.* to 120*l.* and rents from 2*s.* to 20*s.* an acre.

About *High Ascot* the soil varies from a light loam and gravel to a clay, letts from 10*s.* to 20*s.* an acre.

Farms from 10*l.* to 100*l.* a year.

Their courses are,

- | | |
|-----------|-----------------|
| 1. Fallow | And, 1. Turneps |
| 2. Wheat | 2. Barley |
| 3. Oats | 3. Clover for |
| 4. Pease. | three years. |

here. It has been observed, that the *Picts Wall* begins at this place. It is now the seat of *Thomas Lawson*, Esq; who has greatly improved the village, by new buildings, and by paving the streets. In that gentleman's ground several curious stones, and *Roman* inscriptions, have been dug up, which are now preserved by him.

Calder Abbey, near Egremont, *a place of great antiquity.*

Calder Abbey is situated on the river *Calder*. This abbey was an abbey of *Cistercians*, founded A. D. 1134, by *Ranulph de Meschines*, Earl of *Cumberland*, afterwards second Earl of *Chester*, and was endowed by him, and several other benefactors, with divers lands and possessions, all which were confirmed to the abbot and monks by king *Henry the Second*. It has since been the seat of the family of *Patricksons*; and afterwards came, by purchase, to *John Tiffin*, Gent. who bequeathed it, by will, to his grandson *John Senbouse*, Esq; whose seat it now is.

For wheat they plow three or four times, sow three bushels, and reap about twenty. For barley they plow twice, sow three bushels, and reckon the average produce the same as of wheat. They stir but once for oats, sow seven bushels and an half, and gain fifty in return. For pease they likewise plow but once, sow three bushels, and gain, at a medium, fifteen. They stir twice or thrice for rye, sow three bushels generally in *February* or *March*, (a very remarkable time,) and reap twenty. They cultivate some few turneps; plow three or four times for them; a few farmers hoe them: The medium value they reckon at 50s. an acre; and use them for cattle and sheep. Clover they sow with barley or oats, generally mow it for hay, and get about a ton at a mowing.

For potatoes they plow thrice, give the land a good coat of dung; chuse the dryest soils for them; and lay the slices in every other furrow, one foot from plant to plant. On coming up they plow between the rows, to destroy the weeds; a practice one would suppose sufficient to introduce a good turnep culture universally; for those who see the effects of this operation on potatoes might surely extend the idea to turneps. They get three hundred bushels *per* acre, and sow rye after them.

Good grass lets at 20s. an acre, they apply it chiefly to dairying, and reckon that
an

an acre and an half will feed a cow through the summer ; and an acre carry four sheep : Very few of them manure their grafs. Their breed of cattle is the long horned, which they account much the best. Their beasts they fatten to about forty stone.

The product of a cow they reckon at 50 s. or 3 l. that a middling one will give from two to four gallons of milk a day, and make from four to seven pounds of butter a week. They have no notion of keeping hogs in consequence of cows ; a dairy of twenty not maintaining above one or two. The winter food of their cows is straw or hay, a ton and an half of which is the quantity they commonly suppose a cow to eat in the winter ; but if clover hay is used, one ton is enough. The summer joist is 25 s. and that of winter 30 s. and 35 s. They reckon ten cows the business of a dairy maid.

Their flocks of sheep rise from twenty to an hundred and twenty, and the profit they reckon at 6 s. a head ; lamb 5 s. and wool 1 s. They keep them the year round on the commons : The average weight of fleeces 4 lb.

In the management of their arable lands they reckon six horses necessary for one hundred acres of arable ; they use two in a plough, and do an acre a day. The annual expence of keeping horses they reckon at 5 l. 10 s. or 6 l. The joist in summer 40 s. in winter 50 s. They break up their stubbles for a fallow in

February; plow six inches deep: The price of plowing 5*s.* an acre; and of a cart and horse, and driver 2*s.* or 3*s.* a day. They know nothing of cutting straw for chaff.

Three hundred pounds they reckon necessary for a man to stock a farm of 100*l.* a year.

Tythes are generally gathered. Poor rates 6*d.* in the pound; the employment of the women and children spinning and knitting.

The farmers carry their corn nine miles.

The general œconomy will appear from the following sketches of farms.

100 acres in all	22 young cattle
60 arable	30 sheep
40 grafs	1 man
£.70 rent	2 boys
4 horses	1 maid
6 cows	1 labourer.
1 fatting beast	Another,
10 young cattle	125 acres in all
80 sheep	55 arable
1 man	70 grafs
1 boy	£.70 rent
1 maid.	4 horses
Another,	9 cows
140 acres in all	26 young cattle
86 arable	2 fatting beasts
54 grafs	50 sheep
£.95 rent	1 man
7 horses	1 boy
12 cows	1 maid
2 fatting beasts	1 labourer.
	Another,

Another,

80 acres in all
 40 grafs
 40 arable
 £. 70 rent
 5 cows
 1 fattening beaft
 13 young cattle
 30 ſheep
 1 man
 1 maid
 1 boy.

Another,

50 acres in all
 20 arable
 30 grafs
 £. 35 rent
 3 cows
 1 fattening beaft
 2 young cattle
 20 ſheep
 1 boy.

L A B O U R.

In harveſt, 4 s. a week, and board.

In hay time, 1 s. a day, and board.

In winter, 8 d. and ditto.

Mowing grafs, 2 s. an acre.

Ditching, 3 $\frac{1}{2}$ d. to 8 d. a rood.

Head man's wages, 10 l. to 12 l.

Next ditto, 7 l. to 7 l. 7 s.

Boy of ten or twelve years, 25 s.

Dairy maids, 2 l. 10 s. to 3 l.

Other ditto, 2 l. 5 s. to 2 l. 10 s.

Women in harveſt, 4 s. a week, and board.

In hay time, 8 d. and board a day.

I M P L E M E N T S.

No waggon.

A cart, (one horſe) 3 l. to 5 l.

A plough, 1 l. 11 s. 6 d.

A harrow, 1 l. 10 s.

No rollers.

A scythe, 3*s.* 6*d.*

A spade, 2*s.* 6*d.*

Shoeing, 2*s.*

PROVISIONS, &c.

Bread—barley, and barley and rye, $\frac{1}{4}$ *d.*

Cheese, 2*d.*

Butter, 6*d.*

Beef, 3*d.*

Mutton, 2*d.*

Veal, 2 $\frac{1}{2}$ *d.*

Pork, 4*d.*

Milk, $\frac{1}{2}$ *d.* per pint.

Potatoes, 4*d.*

Candles, 7*d.*

Soap, 7*d.*

Labourers house-rent, 10*s.* to 20*s.*

BUILDING.

Oak timber, 8*d.* to 2*s.*

Ash, 1*s.* 6*d.*

A mason, 1*s.* per day, and board.

Carpenter, ditto.

Slate at the quarry,	-	0	16 <i>s.</i>	0
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Laying,	-	0	13	0
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Leading eight miles,	-	1	4	0
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Total per rood,	2	13	0
-----------------	---	----	---

Stone walls, 6*d.* a yard workmanship, and
1*s.* 6*d.* every thing except lime.

About

About *Penrith* there are variations, which deserve noting. The soil is of divers sorts, clay, sand, gravel, loam, and black moory earth. The medium rent of that inclosed is 15 s. the uninclused, 2 s. 6 d. and 3 s. 6 d.

Farms rise from 10 l. a year, so high as 700 l. but in general from 80 l. to 150 l. Their courses are,

Another,

1. Turneps
2. Barley
3. Clover
4. Wheat
5. Oats.

1. Oats on the grass
broke up
2. Barley
3. Oats
4. Oats
5. Pease
6. Barley.

This is capital, indeed! but very common; for much land, even within two or three miles of *Penrith*, hath been sown every year with either barley, oats, or pease, for these seventy years. This information astonished me; I inquired the produce on such land, and found it reckoned as good, upon the whole, as other soils, managed upon more modern principles; five or six for one of oats, and when wheat happens to be sown, ten or eleven for one. Fallowing is a *new fashion*, and not perfectly relished by the farmers yet.

In a common way they generally plow for wheat from three to six times, sow two bushels about *Michaelmas*, and gain, upon

an average, about three quarters. For barley they plow from once to thrice, sow two bushels and an half in *April* or *May*, and gain about twenty-five. Sometimes barley is sown on new broken-up land, and the produce fifty bushels. They give but one stirring for oats, sow four bushels before barley sowing, and get twenty-eight in return. For pease they give but one earth, sow two bushels, and get in return about sixteen; generally use the grey rouncivals. They give from three to five plowings for rye, sow two bushels, the crop about twenty-four.

For turneps they give three or four earths, never hoe, and reckon the average value *per* acre at 50s. use them for sheep, and fattening of beasts. Clover they sow with either barley or oats, generally mow it once, (three times have been known,) and get two ton of hay *per* mowing.

They prepare for potatoes by plowing twice or thrice; dung the land with long horse dung; lay the setts in every other furrow, ten inches asunder, and hand-hoe between them, if weedy; sometimes they horse-hoe them: If the land is designed for wheat, they lime it about *Midsummer*, while the potatoes are growing. The crops rise to 200 bushels *per* acre, but the average about 120; price about 2s. a bushel.

Lime

Lime is their principal manure, though but of a few years standing: They lay 90 bushels *per* acre on their arable lands; costs them from $1\frac{1}{2}$ *d.* to 3 *d.* *per* bushel, besides leading; they lay it on every fallow: They likewise use it on their meadows, and find it to answer well. But dung they reckon much better for every thing. They pare and burn a little, at the expence of 24*s.* an acre. No folding sheep, nor chopping stubbles. Stack their hay at home.

Good grass lets from 15*s.* to 20*s.* an acre: They use it both for dairying and fattening beasts; reckon that an acre will summer feed a cow, or feed five sheep. Their breed of cattle the long horned, which they think much the best; their oxen they fat to about 40 stone.

The product of a cow they calculate at 4*l.* 10*s.* and generally have two firkins of butter from each: The medium quantity *per* week about 7 *lb.* but sometimes 14 *lb.* *per* cow. They keep but few swine in proportion to their dairies, not above two to ten cows. The winter food is straw and hay; of the latter about a ton a head. They reckon a dairy maid can manage ten cows. 25 or 30*s.* the summer joist. In winter they keep them all in the house.

They reckon 3*l.* the profit on summer fattening a beast of fifty stone. Swine fat from 50*s.* to 4*l.* 4*s.* a head.

Their flocks of sheep vary greatly; from thirty to three thousand: The profit they reckon 5*s.* each; that is, lamb 4*s.* and wool 1*s.* They feed them both winter and spring on the commons. The average of the fleeces 3*lb.*

They reckon six horses necessary for the management of an hundred acres of arable land; use two or four in a plough, as the soil is, and do three acres in two days. They account the expence of keeping a horse at 6*l.* a year. The summer joist 2*l.* 2*s.*

They do not begin to fallow till after the barley sowing. The price *per* acre of plowing 5*s.* and 5*s.* 6*d.* and the common depth four inches.

They know nothing of cutting straw for chaff. The hire of a one horse cart 2*s.* 6*d.* a day.

Three hundred pounds they assert is a sum sufficient for stocking a farm of 100*l.* a year.

Land sells in general at about thirty years purchase.

Tythes in general gathered.

Poor rates at *Penrith* 1*s.* 3*d.* in the pound. In the country parishes 6*d.* and upwards, but in some nothing at all. The employment of the women and children spinning, and some knitting: All drink tea.

Many estates from 40*l.* to 200*l.* a year.
The

The corn is generally brought to *Penrith*, and sent to *Kendal* by carriers.

The following are particulars of several farms.

2000 acres, all grafs	Another,
£.200 rent	240 acres in all
5 horfes	120 arable
20 cows	120 grafs
40 young cattle	£.100 rent
2000 ſheep	8 horfes
1 man	12 cows
1 boy	8 fatting beaſts
2 maids	30 young cattle
4 labourers.	200 ſheep
Another,	1 man
100 acres in all	1 boy
40 arable	2 maids
60 grafs	2 labourers.
£.75 rent	Another,
6 horfes	80 acres in all
10 cows	60 grafs
4 fatting beaſts	20 arable
24 young cattle	£. 55 rent
100 ſheep	3 horfes
1 man	4 cows
1 maid	10 young cattle
1 boy	1 boy
1 labourer.	1 maid.

L A B O U R.

In harveſt, 1 s. 6 d. and beer.

In hay-time, 1 s. 3 d. and ditto.

In

In winter, 10*d.* and ditto.
 Reaping corn, 3*s.* to 5*s.*
 Mowing grass, 1*s.* to 2*s.* 6*d.*
 Ditching, 8*d.* a rood.
 Threshing wheat, 2*d.* to 2'*d.*
 ——— barley, 1'*d.*
 ——— oats, 1'*d.*
 Head man's wages, 12*l.* to 14*l.*
 Next ditto, 9*l.*
 Boy of ten or twelve years, 3*l.*
 Dairy maid, to 6*l.*
 Other maids, 3*l.* to 4*l.*
 Women, *per* day, in harvest, 10*d.* and beer.
 In hay-time, 8*d.* and ditto.
 In winter, 6*d.* and ditto.

IMPLEMENT S.

No waggons,
 A cart, 4*l.*
 A plough, 1*l.* 11*s.* 6*d.*
 A harrow, 16*s.*
 A roller, 10*s.* 6*d.*
 A scythe, 2*s.* 6*d.* to 4*s.*
 A spade, 2*s.* 6*d.* to 3*s.* 6*d.*
 For ploughs, the farmers find their own iron,
 Shoeing, 2*s.*

PROVISION S, &c.

Bread—oats, and barley and rye mixed;
 cost $\frac{1}{2}$ *d.* $\frac{3}{4}$ *d.* and 1 *d.* *per lb.*
 Cheese, 2*d.*
 Butter, 6*d.* 18 *oz.*
 Beef, 2 $\frac{1}{2}$ *d.*

Mutton,

Mutton, $2\frac{1}{2}d.$
 Veal, $2d.$
 Pork, $3d.$
 Milk, $1d.$ three pints, skimmed.
 Potatoes, $3d.$
 Candles, $7d.$
 Soap, $7d.$
 Labourers house-rent, $20s.$
 ——— firing, $30s.$

B U I L D I N G.

Bricks, $11s.$ per thousand.
 Slate, $1s. 6d.$ per hundred—It is at quarry,
 per rood, - - 0 12s. 0
 Leading four miles, - 0 12 0
 Laying on, - - 0 12 0
 £. 1 16 0

Stone walls, $6d.$ a yard work; and getting
 and leading, $1s. 8d.$
 Oak $9d.$ to $3s.$
 Ash, $6d.$ to $2s.$
 Elm, ditto,
 A mason, $1s. 8d.$ per day.
 Carpenter, $1s. 8d.$
 Thatcher, $1s. 6d.$

Keswick had too long been an object of
 desire with me to neglect the opportunity of
 seeing it: I went thither from *Penrith*: But
 before I attempt any thing of a description,
 let me mention matters of husbandry. The
 country

country between these towns is various, much of it moors, and quite uncultivated, though evidently capable of it, which is melancholy to reflect on. About *Keswick* the husbandry is as follows :

The soil is both a hazel mould, sand, gravel, and moory; the first but shallow: The inclosed letts from 20 s. to 30 s. right of commonage included.

Farms, from 10 l. to 80 l. a year.

Their course,

- | | |
|-----------------|-------------|
| 1. Oats on turf | 4. Wheat |
| 2. Fallow | 5. Oats and |
| 3. Barley | grasses. |

They plow twice for wheat, sow two bushels and an half, about *Michaelmas*, and reap thirty-five to forty, upon an average. They also stir twice for barley, sow six bushels in *April* or *May*, and reap forty in return. For oats they stir but once, sow seven bushels, and gain fifty. They have no beans, very few pease, and as little rye. They stir three times for turneps, hoe them once or twice; the average value about 55 s. use them for feeding sheep, and stall-fattening oxen. They know but little of clover; one or two farmers have tried it with barley, but found it good for nothing. It must have been upon strange land!

They have two ways of cultivating potatoes, by plowing and digging: In the first, they stir three times, and dung the land well,
lay

lay the slices in every other furrow, one foot asunder, and plow between them once while growing, besides hand-weeding. They plow them up, and get two, three, and four hundred bushels *per* acre.

Their other way is the lazy-bed method; they lay the dung on the green sward, the slices on that, then they dig trenches, and with the earth cover the fetts, but they reckon plowing a better way.

Good grass land lets at 30 *s.* an acre; use it mostly for dairying; an acre and a half they reckon sufficient for a cow, and an acre for four sheep. Manuring it is common. Their breed of cattle is the long horned, and they reckon them best: Fat their oxen to fifty stone; their swine to twenty-four, or thirty.

The product of a cow they reckon at 3 *l.* 13 *s.* 6 *d.* and six gallons *per* day a common quantity of milk *per* cow: Do not keep above one hog to ten. The winter food, straw and hay; of the latter they eat about two ton. The summer joist is 35 *s.* In winter they are kept in the house. Their calves suck about two months.

Their flocks rise from an hundred to a thousand; the profit they reckon at 4 *s.* 3 *d.* a head; that is, lamb 3 *s.* and wool 1 *s.* 3 *d.* sometimes 5 *s.* They keep them, in both winter and spring, on the commons. The average weight of the fleeces, 4 *lb.*

In

In their tillage, they reckon that twelve horses are necessary for the management of one hundred acres of arable land. They use sometimes four, and sometimes two in a plough, and do an acre a day with them. The annual expence of keeping a horse they reckon at 6*l.* 10*s.* the summer joist 2*l.* 2*s.*

The price of plowing, *per* acre, is from 5*s.* to 6*s.* and *March* the time of breaking up for a fallow.—Hire of a cart and horse 3*s.* a day.

In the hiring and stocking of farms, they reckon 360*l.* or 400*l.* necessary for one of 80*l.* a year.

Land sells at from thirty-five to forty years purchase.

Poor rates 9*d.* in the pound.—The employment of the women and children, spinning, and winding yarn.

No small estates.

The following particulars of farms will shew their general œconomy.

100 acres in all	20 young cattle
90 arable	400 sheep (common right)
10 grass	1 man
£. 50 rent	1 maid
8 horses	1 boy
10 cows	1 labourer.
4 fatting beasts	

Another,

220 acres in all	£. 80 rent
100 grass	12 horses
120 arable	22 cows
	30 young

30 young cattle	1 man
5 fattening beasts	2 maids
400 sheep (right of common)	2 boys
	3 labourers.

Another,

130 acres in all	18 young cattle
50 arable	200 sheep (right of common)
80 grafs	1 man
£.95 rent	1 maid
6 horses	1 boy.
12 cows	

Another,

70 acres in all	2 fattening beasts
20 arable	200 sheep (common right)
50 grafs	1 boy
£.50 rent	1 maid.
4 horses	
8 cows	

L A B O U R.

In harvest, 1 s. and beer.
 In hay-time, ditto.
 In winter, 6 d. and board.
 Reaping wheat, 6 s.
 Mowing grafs, 2 s.
 Ditching, 4 d. to 5 d. per rood.
 First man's wages, 10 l. to 11 l.
 Next ditto, 6 l.
 Boy of ten or twelve years, 3 l. to 3 l. 10 s.
 Dairy maid, 4 l. 14 s. 6 d.
 Other ditto, 3 l. 3 s.
 Women per day, in harvest, 1 s. and beer.
 In hay time, ditto.
 In winter, 6 d. and beer.

I M-

I M P L E M E N T S.

No waggons.
 A cart for two horses, 7 *l*.
 A plough, 1 *l*. 5 *s*.
 A harrow, 10 *s*.
 A roller, 14 *s*.
 A scythe, 3 *s*. to 5 *s*.
 A spade, 2 *s*. 8 *d*.
 Shoeing, 2 *s*.

P R O V I S I O N S, &c.

Bread—oat and barley, $\frac{3}{4}$ *d*. *per lb*.
 Cheese, 2 *d*.
 Butter, 6 *d*. 16 to 18 *oz*.
 Beef, 2 *d*.
 Mutton, 2 $\frac{1}{2}$ *d*.
 Veal, 2 *d*.
 Pork, 3 *d*.
 Milk, $\frac{1}{2}$ pint.
 Potatoes, 2 $\frac{1}{2}$ *d*. a peck.
 Candles, 7 *d*.
 Soap, 6 *d*.
 Labourer's house-rent, 20 *s*.
 ——— firing, 25 *s*. but many on hedge-
 breaking alone.

B U I L D I N G.

Oak, 1 *s*. 8 *d*. to 2 *s*. 6 *d*.
 Ash, 1 *s*. 6 *d*. to 2 *s*.
 Mason, *per day*, 1 *s*. 6 *d*.

Carpenter

Carpenter, ditto.

Slate, 28s. a rood, getting and laying *.

Returning to *Penrith*, I took the road to *Shapp*, by *Lowther Hall*, the seat of Sir *James Lowther*, Bart. The house (it was burnt down not many years ago) is not so striking as the plantations, which are designed with much taste, and of very great extent. Near the road is the new town of *Lowther*, where Sir *James* is building a town to consist of three hundred houses, for the use

* The lake of *Keswick* is famous all over *England*. Let me first inform you, that it is by computation ten miles round, of an oblong figure, and inclosed by a prodigious range of mountains, of such a height that they are cloud-topped for several months in the year. The best way of viewing it is to row around the lake, and land now and then for catching the varieties of the prospect.

You walk from the town first down to *Cockshutbill* †, a small rising ground, within the amphitheatre of mountains, and has been lately planted. The view of the lake from hence is very beautiful: You have a most elegant sheet of water at your feet, of the finest colour imaginable, spotted with islands, of which you see five, and are high enough to command the water around them. One is in the middle, of about five acres of grass land,

† I should apologize for many barbarous, and, probably, wrong spelt names, for they are taken from the people at *Keswick*. I have no where met with them in print.

of such of his domesticks, and other people, as are married: And it is highly worthy of remark, that he not only encourages all to marry, but keeps them in his service *after* they have families: Every couple finds a residence here, and an annual allowance of coals. This is a most incomparable method of advancing population, and consequently the good of the nation at large; nor can it be too much imitated. Above forty houses are already erected.

with a house under a clump of trees on one side of it; the whole object beautiful. You look also upon another planted with *Scotch* firs; and also upon three others more distant. This is the view of the floor of this noble amphitheatre; the walls are in a different stile, truly sublime. To the left you look first on a rocky hill, partly covered with shrubby wood; and further on, upon a chain of tremendous rocks, near four hundred yards high; their feet are spread with hanging woods, but their heads bare, broken, and irregular. Following the line, the lake seems to lose itself among a wood of rocks and mountains, the tops rising one above another in the wildest manner. The opposite shore presents you a full view of a vast range of hills; and behind, you look upon the prince of the surrounding mountains, *Skiddow*, who rears his head above the clouds.

Leaving this hill you walk down to your boat, and are struck with the limpid transparency of the water, which almost exceeds belief; the bottom is quite paved with stones, and the white ones
glitter

The soil about *Shapp* is generally a loam upon a lime-stone, in some places thin, but in others deep; letts from 1 s. to 20 s. an acre; but the inclosures generally 20 s.

Farms from 40 l. to 400 l. a year.

Their course,

1. Break up, and sow oats
2. Oats
3. Barley
4. Oats, and then down again.

This is execrable.

glitter through the tremulous curl of the surface like so many diamonds. You row to the left, pass a variety of shore, here rocky and projecting, there low and retiring; coast a planted island, and coming under *Wallow Crag*, one of the immense rocks before mentioned, you have from its foot a very fine view: The surrounding rocks and mountains are noble; the crag above you, fringed about a third of its height with pendent woods; the lake at your feet breaks beautifully into a bay behind a promontory, called *Stable Hills*; against it is *Brampsholm Island* *; and over the low part of the promontory you catch the wood on *Lord's Island*, in a very pleasing manner. The opposite shore is beautifully scattered with hanging woods, and some white houses give a liveliness to the view truly agreeable.

Taking your boat again, and rowing till you are opposite the opening between *Wallow* and *Barrow Crag*s, the noise of a water-fall unseen, will induce you to land again; walking on to a

* Belonging to *Greenwich Hospital*.

They plow but once for barley, sow two bushels, and gain about twenty. For oats they give three or four plowings, sow seven bushels and a half, and gain thirty-five in return.

Good grass lets at 20s. and 25s. an acre; it is used both for dairying and fattening, but chiefly the latter: An acre they reckon will keep a cow through the summer, or six

little ruinous bridge, you look upon a hollow of rocks and woods, with a stream pouring down the clefts in many sheets, and seen among the trees in the most picturesque manner; a romantic scene of rock, wood, and water, thirty feet high.

Rowing from hence, under *Barrow Crag*, the shore is rocky, and various: Passing some low ground, and landing on a rising one, the view is exquisite. The water breaks into bays and sheets, stretching away from the eye between the *Stable Hills*, *Lord's Island*, and *Vicar's Island*: *Brampsholm* cuts in the middle; and *St. Alban's Isle* presents his broad side to your full view. At the other end of the lake, the rising hills, part of cultivated, waving inclosures, and part of hanging woods, all scattered with white houses, and the whole crowned with the lofty mountains, are beautifully picturesque, and contrast with the view of the south end of the lake, around which the rocks and mountains are tremendously bold, pendent, and threatening.

Following the coast, the shore is thinly fringed with wood; then you row around a projecting land, containing several inclosures, and come under

sheep. They manure it as much as they can, but that is no great matter. Their breed of cattle is the long-horned, and have fattened them so high as an hundred and thirty stone, but very uncommon; sixty to eighty common.

The product of a cow they reckon at 5 *l.* and four gallons the common quantity of milk *per* day: As to swine, they keep none, upon account of cows: A farmer

under a fine, thick, hanging wood, with a raging torrent breaking through it, over rocks, just seen between the wood and *Barrow-side*, but heard in the most striking manner.— You next anchor in a bay, the environs of which are dreadful; you are under a monstrous craggy rock, (*Throng Crag*,) scattered with shrubby wood to the very edge, and almost perpendicular; and moving the eye from it, you find this end of the lake surrounded with a chain of them, in the boldest and abruptest stile imaginable. The opposite shore of mountains very great; and the effect of all greatly heightened by the noise of distant water-falls.

From hence you coast a dreadful shore of fragments, which time has broken from the towering rocks, many of them of a terrible size; some stopped on the land by larger than themselves, and others rolled into the lake, through a path of desolation, sweeping trees, hillocks, and every thing to the water; the very idea of a small shiver against the boat strikes with horror.

Advancing, you catch the view of a most beautiful water-fall, within the wave of a gentle bend of the rocks; but to enjoy the full luxuriance of

without a dairy has as many as those who keep the largest, which would surprize a *Suffolk* or an *Essex* man. The winter food of the cows is hay, in general, but some straw. Their calves for the butcher suck from one to ten weeks; for rearing, not at all, but are all brought up by hand with milk, for twenty weeks. A cow, in winter,

this exquisite landscape, it is necessary to land and walk to an opening in the grove, from whence it is seen in surprizing beauty.

You look up a wall of rock, perpendicular to the top, scattered with wood, that seems to hang in the air; a large stream rushes from a cliff near the top, and falls, in the most broken and romantic manner, several hundred feet: It falls in one gush for several yards; a projecting part of the rock breaks it then into three streams, which are presently quite lost behind hanging woods. Lower down, you again catch it in a single bright sheet, among the surrounding dark wood, in the most elegantly picturesque manner that fancy can conceive. Losing itself again behind the intervening trees, it breaks to the view in various scattered streams, half seen, glittering in the sun beams, among the branches of the trees, in the most bewitching manner. Lower still, you again catch it united in one bright rushing fall, in the dark bosom of a fine hollow wood, which finishes the scene. The surrounding hills, rocks, and scattered pendent woods, are all romantic and sublime, and tend nobly to set off this most exquisite touch of rural elegance. In Plate II. is the sketch I took of it.

Follow-





generally eats an acre and an half of hay, and they are kept in house. The summer joist from 14 s. to 40 s.

Their flocks of sheep rise from five to fifteen hundred. They sell no lambs, but rear them for weathers, at from 7 s. to 14 s. The profit, *per* head, of the flock, about 5 s. Keep them, both winter and spring, on the commons: The weight of the fleeces 3 or 4 lb. at 3 d.

Following the coast you sail round a sweet little island, a clump of wood growing out of the lake; but it is joined to the main land when the water is very low. From hence, pursuing the voyage, you come into the narrow part of the lake, and have a full view of most romantic terrible craggy rocks, inclosing a noble cascade: It is a view that must astonish the spectator. You look up to two dreadful pointed rocks, of a vast height, which almost hang over your head, partly scattered with shrubby wood, in the wildest taste of nature. Between them is a precipice of broken craggy rock, over which a raging torrent foams down in one vast sheet of water, several yards wide, just broken into ebullitions by the points of the rocks unseen. At another time I saw it, when the rock appeared, and the stream was broken by it into several gushing torrents, which seemed to issue distinctly from clefts, in the most picturesque manner imaginable: The water is lost in one spot, caught again in another; foaming out of this cleft with rushing impetuosity, and trickling down that with the most pleasing elegance. Nothing can be fancied more grand, more beautiful, or romantic.

They use two or three horses in a plough, and do an acre a day. The summer joist of a horse varies from 10 s. to 50 s. The price of plowing, from 5 s. to 6 s. an acre: They cut about five inches deep.

They know nothing of cutting straw for chaff.

They reckon 5 or 600 l. necessary to stock a farm of 100 l. a year: They are, in general, grazing ones.

The sketch in Plate III. will give you but an imperfect idea of it.

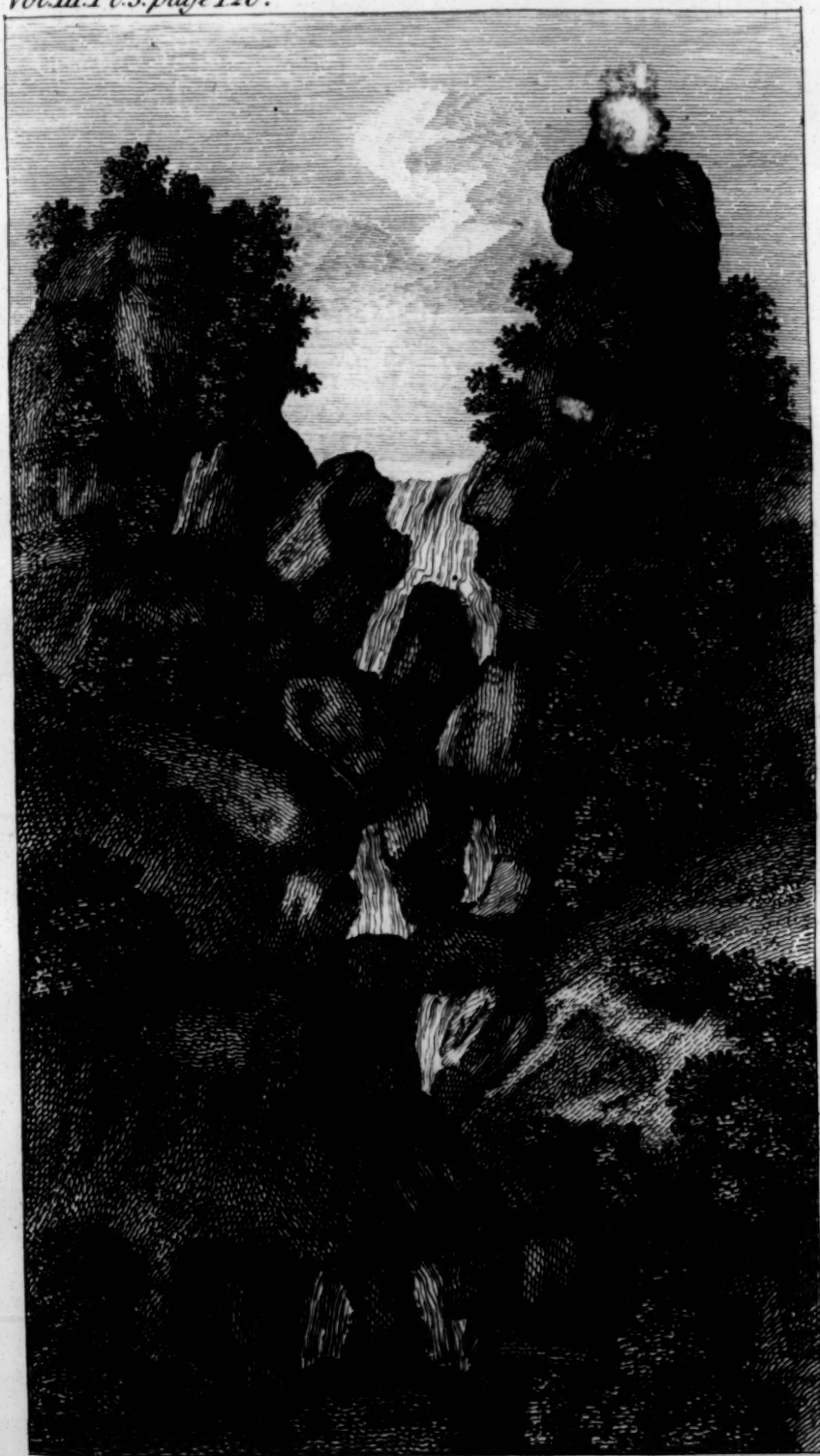
Taking a winding walk through the wood, it leads down to a rapid stream which you cross, and presently come to a new and most delicious scene. To the right you catch a side view of the fall just described, in a new direction, most beautifully embosomed in rock and hanging wood. Full in front you look upon another cascade, which rushes out as it were from the rotten stump of an old tree, and falling down an irregular surface of rock, it breaks into larger and more sheets, some full, others thin and trickling, a most sweet variety: After this, it breaks again, and falls into the stream in fresh beauty, amazingly romantic. Plate IV. is the sketch I took.

Following the shoar into fleet water, you come into a region of stupendous rocks, broken, and irregularly pointed, in the most abrupt and wild manner imaginable, with monstrous fragments, large as a house, that have tumbled from their heads.

Pursuing the water to its point, you arrive at a new and glorious amphitheatre of rocks and
moun-









Land sells at from thirty to thirty-five years purchase: There are many freeholds of from 100 to 300 *l.* a year.

Tythes both gathered and compounded.

Poor rates from 6*d.* to 1*s.* in the pound.

The employment spinning wool, for *Kendal*.
All drink tea.

The farmers carry their corn ten miles.

mountains; on one side broken, and wildly irregular; and on the other, a vast range of mountain side. The hollow magnificently great.

Going up the river to *Grange bridge*, under *Grange Crag* the lake is lost: the prospect new and terrible; a whole sweep of rocks, crags, mountains, and dreadful chasms.

Leaving the boat, and walking up to the village, you gain a view of a cone-like rocky woody hill, rising in the midst of a hollow of mountains, surprizingly romantic. From hence following the road to the lake under *Brandelow Hill*, you have the noblest view of rocks and hills in the world. *Grange Crag* and *Crown Head* appear in full view, surrounded by an immense wall of rock and mountain.

Taking boat again, you row round a fine promontory, beautifully wooded; and upon turning it, you tack about round an exquisite little island in the bay; and if the water is high, there are two more very fine woody islands, around which you may row: This little archipelago will entertain a person of the least taste. Nor is the view of the lake's environs unworthy of admiration. The crags and cliffs to the right are tremendous: *Skiddow* fronts you in the sublimest
stile;

The following particulars of farms will shew the general œconomy.

200 acres of grass	20 young cattle
£.140 rent	700 sheep (common right)
2 horses	2 men
60 fatting beasts	1 maid.
10 cows	

stile; *Saddle-back* on one side of him rears his head in the boldest manner: To the left you look upon an exceeding fine hanging wood, beautifully spread over a waving hill.

Advancing with the coast you next land at the lead mines, which, if you have a taste for grotto work, will entertain, as a boat may be loaded with spar of various glittering and beautiful kinds. Here also are two curiosities, *viz.* two salt springs.

Sailing along the shore it leads you under a hill most beautifully spread with wood; it is covered thick with young timber trees, which grow down to the very water's edge. You next enter a little bay, and look upon a small round hill, covered with wood, inimitably beautiful. This you also coast, nor can any thing be more truly exquisite than these two slopes of wood, with inclosures between them, contrasting the sublimity of the rocks and mountains. Nor should you here forget to remark three or four inclosures on the other side of the lake, down to the water's edge, under *Achnefs Fell*; they are pleasing.

Sailing by some beautiful grass inclosures you catch a white house romantically situated;
and

Another,

100 acres in all	15 fatting beasts
15 arable	15 young cattle
85 grafs	200 ſheep (com-
£. 100 rent	mon right)
2 horſes	1 man
20 cows	1 maid.

and then ſkirting more incloſures, turn round a ſmall but moſt pleaſing promontory, with a ſweet clump of trees on it: This leads into a land-locked bay, which commands a beautiful hanging wood; the ſcene enlivened by a white houſe quite in the ſpot of taſte. From hence you look over the lake upon *Caſtle Head Crag*, a fine round of rocky wood riſing out of a vale, and backed with waving incloſures.

The ſhore from hence is moſt beautifully indented and irregular, running up among little hills fringed with wood: From hence you wind in and out of ſeveral bays and creeks, commanding very pictureſque views of the land, and around a hill of ſhrubby wood covered to the very top. From hence around to the town the ſhore is flat.

Your next view of *Kefwick* muſt be from land, by walking up the vaſt rocks and crags firſt deſcribed. This is a journey which will terrify thoſe who have been only uſed to flat countries. The walk to the higheſt rock is a mile and half up, and almoſt perpendicular, horribly rugged, and tremendous; it is rather a climbing crawl than a walk. The path croſſed the ſtream, which forms the firſt mentioned caſcade, in the miſt of dreadful

Another,

120 acres in all	10 young cattle
20 arable	500 sheep (common right)
100 grafs	1 man
£. 75 rent	1 maid
3 horses	1 boy.
13 cows	
8 fattening beasts	

ful cliffs and romantic hollows : The torrent roars beneath you, in some places seen, in others hid by rock and wood.

From hence you climb through a slope of underwood to the edge of a precipice, from which you look down upon the lake and islands in a most beautiful manner ; for coming at once upon them, after leaving a thick dark wood, the emotions of surprize and admiration are very great.

Following the path, (if it may be so called,) you pass many romantic spots, and come to a projection of the hill, from which you look down, not only upon the lake as before, but also upon a semi-circular vale of inclosures, of a fine verdure, which gives a curve into the lake : One of the fields is scattered over with trees, which from hence have a picturesque effect.

Advancing further yet, you come to the head of *Craftig-fall*, which is a vast opening among these immense rocky mountains, that lets in between them a view across the lake, catching two of the islands, &c. nor can any thing be more horribly romantic than the adjoining ground where you command this sweet view.

At last we gained the top of the crag, and from it the prospect is truly noble ; you look down upon

Another,

70 acres in all	2 fatting beasts
5 arable	8 young cattle
65 grafs	200 sheep (common right)
£.63 rent	1 boy
2 horfes	1 maid.
10 cows	

upon the lake, spotted with its islands, so far below as to appear in another region; the lower hills and rocks rise most picturesquely to the view. To the right you look down upon a beautiful vale of cultivated inclosures, whose verdure is painting itself. The town presents its scattered houses, among woods and spreading trees: Above it rises *Skiddow*, in the most sublime magnitude.

Descending to the town, we took our leave of this enchanting region of landscape, by scaling the formidable walls of *Skiddow* himself: It is five miles to the top, but the immensity of the view fully repays for the labour of gaining it. You look upon the lake, which here appears no more than a little basin, and its islands but as so many spots; it is surrounded by a prodigious range of rocks and mountains, wild as the waves, sublimely romantic. These dreadful sweeps, the work of nature in the most violent of her moments, are the most striking objects seen from *Skiddow*; but in mere extent the view is prodigious. You see the hills in *Scotland* plainly; you view a fine reach of sea; command the *Isle of Man*, and see part of an object, which I take to be an highland in *Ireland*; besides prodigious tracks of adjacent country.

Keswick, upon the whole, contains a variety that cannot fail of astonishing the spectator: The lake,

Another,

50 grafs, all grafs	10 young cattle
£.40 rent	80 ſheep (common right)
1 horſe	1 boy.
6 fatting beaſts	
8 cows	

L A B O U R.

In harveſt, 8*d.* to 10*d.* and board.In hay time, 1*s.* to 1*s.* 6*d.* and ditto.

lake, the iſlands, the hanging woods, the waving incloſures, and the caſcades are all moſt ſuperlatively elegant and beautiful; while the rocks, cliffs, crags, and mountains are equally terrifying and ſublime. There cannot be a finer contraſt. But it is much to be regretted that art does not yield more of her aſſiſtance, not in decoration, for the lake wants in not, but in enabling the ſpectator to command, with greater eaſe, the luxuriant beauties and ſtriking views, which to ſo many travellers are hitherto quite unknown: There are many edges of precipices, bold projections of rock, pendent cliffs, and wild romantic ſpots, which command the moſt delicious ſcenes, but which cannot be reached without the moſt perilous difficulty: To ſuch points of view, winding paths ſhould be cut in the rock, and reſting places made for the weary traveller: Many of theſe paths muſt neceſſarily lead through the hanging woods, openings might be made to let in views of the lake, where the objects, ſuch as iſlands, &c. were peculiarly beautiful. At the bottoms of the rocks alſo, ſomething of the ſame nature ſhould be executed for the better viewing the caſcades, which might be

In winter, 6 *d.* and ditto.

Mowing, 3 *s.*

Head man's wages, 9 *l.*

Next ditto, 7 *l.* 10 *s.*

Boy of ten or twelve years, 50 *s.*

Maids, 4 *l.* to 5 *l.*

Women *per* day in harvest, 6 *d.* and board.

In hay time, ditto.

be exhibited with a little art, in a variety that would amaze.

It is amusing to think of the pains and expence with which the environs of several seats have been ornamented, to produce pretty scenes, it is true; but how very far short of the wonders that might here be held up to the eye in all the rich luxuriance of nature's painting. What are the effects of a *Louis's* magnificence to the play of nature in the vale of *Keswick*! How trifling the labours of art to the mere sport of nature!

It is the contemplation of such amazing scenes, that fills the soul with admiration and almost overpowers her faculties: One is lost in wonder at the omnipotence of a Being, the splendor of whose existence exhibits itself in works of such endless variety.

Returning to *Penrith*, our next expedition was to *Hulls Water*, a noble lake, about six miles from that town: The approach to it is beautiful; the most advantageous way of seeing it is to take the road up *Dunmanlot Hill*, for you rise up a very beautiful planted slope, and see nothing of the water till you gain the summit, when the view is uncommonly fine. You look down at once upon one sheet of the lake, which appears prodigiously magnificent. It is an oblong water, cut by islands,

I M P L E M E N T S.

No waggons.

A cart, 5 *l*.

A plough, 30 *s*.

A harrow, 7 *s*. 6 *d*.

No rollers.

A scythe, 2 *s*. 6 *d*. to 4 *s*.

A spade, 2 *s*. 6 *d*.

Shoeing, 2 *s*.

islands, three miles long and a mile and a half broad in some places, in others a mile. It is inclosed within an amphitheatre of hills, in front at the end of the reach, projecting down to the water edge, but retiring from it on each side, so as to leave a space of cultivated inclosures between the bottom and the lake. The hedges that divide them are scattered with trees; and the fields of grass and corn, waving in beautiful slopes from the water, intersected by hedges, in the most pleasing manner.

Upon the right, a bold swelling hill of turf rises with an air of grandeur. Another view off this hill is on to a mountain's side, which presents to the eye a swelling slope of turf, and over it *Saddleback* rises in a noble stile.

Another view from this hill is down upon a vale of cultivated inclosures; Mr. *Hassel's* house at *Delmaine*, in one part, almost encompassed with a plantation: Here you likewise catch some meanders of the river, through the trees, and hear the roar of a water-fall. This hill is itself a fine object, viewed every way, but the simplicity of its effect is destroyed, by being cut by a double stripe
of

P R O V I S I O N S, &c.

Bread — Oat.

Cheese, $2\frac{1}{2}d.$

Butter, $7\frac{1}{2}d.$ 20 oz.

Beef, 2 d. to $2\frac{1}{2}d.$

Mutton, 2 d. to $2\frac{1}{2}d.$

Veal, ditto.

Pork, 4 d. to $4\frac{1}{2}d.$

Bacon, 7 d.

Milk, $\frac{1}{2}d.$ per pint,

Potatoes, 2 d. a peck.

of *Scotch* firs across it, which varies the colour of the verdure, and consequently breaks the unity of the view.

Another point of view from which this part is seen to good advantage, is from off *Soulby Fell*: You look down upon the lake which spreads very finely, bounded to the right by the hills, which rise from the very water; on the other side, by *Dunmanlot Hill*; in front, by a fine range of inclosures, and the water's edge skirted by trees, in a most picturesque manner.

Directing your course upon the lake, and landing at *Swartb Fell*, the next business should be to mount its height. The water winds at your feet like a noble river; the opposite banks beautiful inclosures, fringed with trees; and some little narrow slips, like promontories, jet into it with the most pleasing effect imaginable; and you at the same time hear the noise of a water-fall beneath, unseen.

Taking boat again, and sailing with the course of the lake, you turn with its bend, and come

Candles, 7 *d.*

Soap, 6 $\frac{1}{2}$ *d.*

Labourer's house rent, 20 *s.* to 40 *s.*

—— firing, 20 *s.* to 30 *s.*

BUILDING.

Oak, 1 *s.* 4 *d.*

Ash, 1 *s.* 2 *d.*

Carpenter, 1 *s.* a day and board.

Slate, 55 *s.* a rood, brought in.

—— laying on and lime, 15 *s.*

into a sheet of water, which appears like a lake of itself. It is under *Howtown* and *Hawling Fell*. The environs here are very striking; cultivated inclosures on one side, crowned with the tops of hills; and on the other, a woody craggy hill down to the very water's edge. The effect fine.

Next you double *Hawling Fell*, and come again into a new sheet of water, under *Martindale Fell*, which is a prodigious fine hill, of a bold, abrupt form; and between that and *Hawling Fell*, a little rising wave of cultivated inclosures, skirted with trees; the fields of the finest verdure, and the picturesque appearance of the whole most exquisitely pleasing. It is a most delicious spot, within an amphitheatre of rugged hills.

Following the bend of the water under *New Crag*, the views are more romantic than in any part hitherto seen. *New Crag*, to the right, rears his head, in a style truly sublime; and passing it a little, the opposite shore is very noble. *Martindale Fell* rises steep from the water's edge, and presents a bold wall of mountain, really glorious. In front, the hills are craggy, broken,
and

Stone walling, 7 *d.* a yard workmanship;
and getting, 2 *d.* *

Twelve of the fifteen miles from *Shapp* to *Kendal* are a continued chain of mountainous moors, totally uncultivated; one dreary prospect, that makes one melancholy to behold; for the soil itself is highly capable of cultivation and of profitable uses; much of it is of a good depth; and the spontaneous growth proves that the nature of the land is equal to many valuable uses.

After crossing this dreary track, the first appearance of good country is most exquisitely fine; about three miles from *Kendal* you at once look down from off this desolate country upon one of the finest landscapes in

and irregular in shape (not height) like those of *Keswick*: They project so boldly to the very water, that the outlet or wind of the water is shut by them from the eye. It seems inclosed by a shore of steep hills and crags. From hence to the end of the lake, which there is sprinkled by three or four small islands, the views are in the same stile, very wild and romantic. It is an exceedingly pleasing entertainment to sail about this fine lake, which is nineteen miles round, and presents to the eye several noble sheets of water; and abounds, for another amusement, with fish; pike to 30 *lb.* perch to 6 *lb.* trout to 6 *lb.* besides many other sorts. The water is of a most beautiful colour, and admirably transparent.

* I took the opportunity of being at *Shapp* to ride to *Hawes Water*, a lake some miles to the westward. The road thither leads for some distance

the world; a noble range of fertile inclosures, richly enameled with the most beautiful verdure: And coming to the brow of the hill have a most pleasing view of a variegated track of waving inclosures, spreading over hills, and hanging to the eye in the finest manner that fancy can conceive. Three hills in particular are overlooked, cut into inclosures in a charming stile, of themselves forming an elegant landscape, and worthy the imitation of those who would give the embellishments of art to the simplicity of nature.

Kendal is a well built and well paved town, pleasantly situated, in the midst of the beautiful country just described. It is fa-

tance along the side of a hill, which commands an exceeding fine view of *Ponton Vale* to the left. It is several miles in length, of an oblong figure, all cut into inclosures of a charming verdure, and scattered with villages, clumps of wood, houses, bridges, trees, &c. A fine river takes the most beautiful serpentine course in the world through it: The opposite bank is a large ridge of mountain. It is a sweet landscape.

The approach to the lake is very fine: You pass between two high ridges of mountain, the banks spread with inclosures; upon the right two small beautiful hills, one of them covered with wood. The lake is a small one, about three miles long, half a mile over in some places, and a quarter in others; almost divided in the middle by a promontory of inclosures, joining only by a streight; so that it consists of two sheets of water.

mous for several manufactories; the chief of which is that of knit stockings, employing near five thousand hands by computation. They reckon one hundred and twenty wool-combers, each employing five spinners, and each spinner four or five knitters; if four, the amount is two thousand four hundred; this is the full work, supposing them all to be industrious; but the number is probably much greater. They make five hundred and fifty dozen a week the year round, or twenty-eight thousand six hundred dozen annually: The price *per* pair is from 22 *d.* to 6 *s.* but in general from 22 *d.* to 4 *s.* some boys at 10 *d.* If we suppose the average 3 *s.* or 36 *s.* a dozen, the amount is 51,480 *l.*

The wool they use is chiefly *Leicestershire*, *Warwickshire*, and *Durham*: They gene-

water. The upper end of it is fine, quite inclosed with bold steep craggy rocks and mountains; and in the center of the end a few little inclosures at their feet, waving upwards in a very beautiful manner. The south side is a noble ridge of mountain, very bold and prominent down to the waters edge. They bulge out in the center in a pendent broad head that is venerably magnificent: And the view of the first sheet of the lake losing itself into the second among hills, rocks, woods, &c. picturesque. The opposite shore consists of inclosures, rising one above another, and crowned with craggy rocks.

rally mix *Leicestershire* and *Durham* together. The price 8*d.* 9*d.* and 10*d.* *per lb.* They send all the manufactures to *London* by land carriage, which is said to be the longest, for broad wheel waggons, of any stage in *England*. The earnings of the manufacturers in this branch are as follow :

	<i>s.</i>	<i>d.</i>
The combers, <i>per week</i> , -	10	6
The spinners, women, -	3	0
Ditto, children of ten or twelve years, - - -	2	0
The knitters, - - -	2	6
Ditto, children of ten or twelve years, - - -	2	0

All the work-people may have constant employment if they please.

During the late war business was exceedingly brisk, very dull after the peace, but now as good as ever known.

The making of cottons is likewise a considerable manufacture in this town. They are called *Kendal* cottons, chiefly for exportation, or sailors jackets, about 10*d.* or 1*s.* a yard, made of *Westmoreland* wool, which is very coarse, selling only at 3*d.* or 4*d.* *per lb.* This branch employs three or four hundred hands, particularly shearmen, weavers, and spinners.

	<i>s.</i>	<i>d.</i>
The shearmen earn <i>per week</i> , -	10	6
The weavers, (chiefly women,) -	4	3
The spinners, - - -	3	3
		All

All have constant employment. During the war this manufacture was more brisk than ever, very dull after the peace, and has continued but indifferent ever since.

Their third branch of manufacture is the linsey woolsey, made chiefly for home consumption, of *Westmoreland*, *Lancashire*, and *Cumberland* wool; the hands are chiefly weavers and spinners. The first earn 9 s. or 10 s. a week; the second (women) 4 s. 6 d. or 5 s.

The farmers and labourers spin their own wool, and bring the yarn to market every week: There are about five hundred weavers employed, and from a thousand to thirteen hundred spinners in town and country. The business during the war was better than it has been since, but is now better than after the peace.

Their fourth manufacture is the tannery, which employs near a hundred hands, who earn from 7 s. to 7 s. 6 d. a week. They tan many hides from *Ireland*.

They have likewise a small manufactory of cards, for carding cloth. Another also of silk: They receive the waste silk from *London*, boil it in soap, which they call scowering, then it is combed by women (there are about thirty or forty of them,) and spun, which article employs about an hundred hands; after this it is doubled and

dressed, and sent back again to *London*.
This branch is upon the increase.

P R O V I S I O N S, &c.

Bread — oatmeal baked in thin hard cakes,
called clap-bread, costs 1 *d.* per *lb.*

Cheese, 3½ *d.*

Butter, 6½ *d.* 16 *oz.*

Mutton, 2 *d.* to 2½ *d.*

Beef, 2½ *d.* to 3 *d.*

Veal, 2½ *d.*

Pork, 4½ *d.*

Bacon, 6½ *d.*

Milk, ½ *d.* a pint.

Potatoes, 10 *d.* four gallons.

Poors house-rent, 30 *s.*

———— firing, 45 *s.* to 50 *s.*

Kendal is a very plentiful and cheap place; fat stubble geese are sold at 1 *s.* 4 *d.* each.—This is so cheap, that a living I heard of is not a very fat one, 4 *l.* a year, a pair of *wooden shoes*, and a *goose-gate*. Alas, poor Rector! A *goose-gate* is the right of keeping a goose on the common. All the poor in this country wear wooden shoes.—Fat fowls at 1 *s.* a couple; fat ducks the same price; wild fowl and game in great plenty; woodcocks often at 2 *d.* a piece; partridges are sold common in the market, and very cheap: Fish in great plenty; trout oftentimes at a penny a pound,
besides

besides any other forts. It is a neat well built town*.

As I next resume intelligence of husbandry with the county of *Lancaster*, I shall here conclude this letter,

I am, Sir, &c.

* From hence we viewed the famous lake called *Winander Meer*, ten miles west of *Kendal*; by much the largest water of the kind in *England*. It is fifteen miles long, and from two miles to half a mile broad. It gives gentle bends, so as to present to the eye several sheets of water; and is in many places scattered with islands: The shores are varied, consisting in some places of ridges of hills, in others of craggy rocks; in some of waving inclosures, and in others of the finest hanging woods; several villages and one market town are situated on its banks, and a ferry crosses it at another; there is some business carried on upon it, so that it is not uncommon to see barges with spreading sails: All these circumstances give it a very chearful appearance, at the same time that they add to its beauty.

I would advise those who view this lake, not to take the common road down to the village of *Bonus**, where the boats are kept, but (for reasons which I shall hereafter add) to go thither round almost by the ferry. The landlord at the inn at that village keeps a boat, and can always

* I am sensible throughout this Tour of misspelt names; but many of the places I mention are not to be found in maps, I am obliged, therefore, to write from the ear.

provide

L E T T E R XVIII.

R ETURNING to *Kendal* I took the road to *Burton*, passing through a country various in respect of culture : Around that town, particularly about *Holme*, their soil is a light loam on a lime stone, with some of sand, letts from 6*s.* 8*d.* to 3*l.* an acre ; average about a guinea.

Farms from 20 *l.* to 80 *l.* a year.

provide rowers for any company that comes ; the extreme beauty of the lake induced me to explore every part of it with attention ; but as I have already troubled you with several recitals of these water expeditions, I shall only mention a few of the principal points of view, and to which I should particularly recommend any traveller to row if he had not time to view the whole lake ; but no scheme of this sort can be more amusing than two or three days spent here in rowing, sailing, fishing, and wild duck shooting, all which are here to be had in great perfection ; and I should add, that the end of *May*, or the beginning of *June*, is the proper time for such an expedition.

Taking boat at the village, you row first to *The Island*, so called by way of pre-eminence, being by much the largest in the lake ; it contains between thirty and forty acres of land, and I cannot but think it the sweetest spot, and full of the greatest capabilities, of any forty acres in the king's dominions. The view from the south
end

As to their courses they did not use to fallow at all, but now they are,

1. Fallow

2. Wheat

3. Barley

4. Oats ; and

then let it lie

to graze itself.

And,

1. Fallow

2. Wheat

3. Barley

4. Clover

5. Wheat

6. Oats.

7. Barley

8. Oats ; and

then lie as before ; for this these flovens deserve to be hanged.

end is very fine ; the lake presents a most noble sheet of water stretching away for several miles, and bounded in front by distant mountains ; the shoars beautifully indented by promontories covered with wood, and jetting into the water in the most picturesque stile imaginable, particularly the ferry points on both sides ; it is broke by *Berkshire Island*, an elegant spot, finely wooded in one part, and by *Craw Island*, almost covered with wood, in another, and just hides a house on the main land.

The eastern shore is spread forth with the most beautiful variety. In some places waving inclosures of corn and grass rise one above another, and present to the eye a scenery beyond the brightest ideas of painting itself. In others, shrubby spots and pendent woods hang down to the very water's edge : In some places these woods are broken by a few small grass inclosures, of the sweetest verdure ; and in others run around large circuits of them, and, rising to the higher grounds, lose themselves in the wilds above.

Here

Of wheat they sow two bushels, about *Michaelmas*, and reap from twelve to fifteen. For barley they plow twice, sow not quite three bushels, about the end of *April* or the beginning of *May*, and reckon the average produce at twenty. They plow but once for oats, sow four bushels about the time of barley sowing; the crop twenty-four. They cultivate some beans, plow once, sow two bushels in *March* or *April*, never hoe, but gain on an average twenty-three bushels. They plow once for pease, sow a bushel and

Here you see slips of land running into the lake, and covered with trees which seem to rise from the water: There, a boldly indented shore, swelling into bays, and skirted with spreading trees; edgings as elegant as ever fancied by *Claud* himself. The village is caught among some scattered trees, in a sweet situation, on the bank of a bay, formed by a promontory of wood, the back ground a sweep of inclosures, rising one above another.

Following this line of shoar towards the north, you command *Bannerig* and *Oareft Head*, two hills all cut into inclosures to the very top; to the north you look upon a noble range of irregular mountains, which contrast finely with the other more beautiful shores. The western is a sweep of craggy rocks, here and there fringed with wood. Advancing to the very farthest point of land, these objects are varied, and new ones appear that are truly beautiful. The *Lancashire* ferry point and the woody island join, and seem one prodigious promontory of wood; the ferry
house

an half, and gain from none at all to fifteen bushels. For rye they likewise give but one earthen, sow two bushels; the crop from twelve to fifteen.

They stir twice for turneps, know nothing of hoeing; the average value *per* acre, 5*l.* or 6*l.* *Thomas Richardson* has had crops that he would not take 12*l.* an acre for; but such extravagant prices are not in the least owing to good husbandry, but the scarcity of the commodity. They use them for cows, sheep, &c. &c. Clover is not very

house seen among the trees in a picturesque manner. They form the boundary in front of a fine bay, walled in to the right by a noble rocky cliff; and in the middle of it a sweet little woody island. Over the low part of the promontory the distant hills are seen. The shore to the left, here, appears peculiarly beautiful; for half a dozen inclosures of the most pleasing verdure rise from the water's edge among sloping woods, and offer a variety of colours of the brightest hues. From hence likewise you look back on *Bannerig*, a fine cultivated hill, rising from the lake in the most agreeable manner.

Moving from this end of the island along the western coast of it, the view is extremely picturesque. The streight is broken by three islands, two of them thickly covered with wood, the other a long slip, scattered with tall upright trees, through the stems of which, and under the thick shade of their spreading tops, the water is seen glittering with the sun beams; a landscape truly delicious.

From

common, but they sow it with barley; they get fifteen hundred weight of hay off it the first crop, and ten or twelve hundred weight the second; but sometimes they feed one crop.

Their culture of potatoes is as follows: They dung the lay ground well; lay the slices (eighteen bushels) on the dung, and then dig trenches two spits wide, and cover the setts, which are laid seven inches square, with the turfs and moulds that rise: If weeds come they are drawn out by hand. The crop, upon an average, a hundred and

From the north end of this isle, so happy in the beauties of prospect, the views are various, and some of them exquisite: Looking towards the south, you command a fine view of the lake, spreading to the right and left behind promontories, one beyond another, in an irregular but glorious sheet of water, encircled by an amphitheatre of hills, in the noblest stile. To the north you look upon another sheet, different from the first: It is broken by a cluster of four small but beautiful islands.

Full in front you look upon a sweep of mountains, and on one, in particular, that is very curious: It is of a circular form, rising out of a vast hollow among the rest, and is overtopped by them; a scene romantic in the highest degree. A little to the right of it, you command one of the finest cultivated hills in the world. It is intersected by hedges, trees, and scattered woods, into a vast sweep of inclosures, which reach the very top: More to the right, the eye is delighted with the most elegant waves of cultivated inclosures.

eighty bushels *per* acre. Barley they sow after them, and get thirty bushels an acre. This is the lazy-bed way.

As to manure, they can at present boast but little : Lime is in use among them, but it has been only for two or three years ; they lay ninety or an hundred bushels an acre on to the fallow for wheat, costs $4\frac{1}{2}d.$ *per* bushel ; they do not pare and burn ; stack their hay in houses, but know nothing of chopping their stubbles.

fures, that can be conceived, rising to the view in the most pleasing varieties of landscape, and forcing admiration from the most tasteless of mortals. To the left, a vast range of rocks and mountains form the boundary of the lake, and project into it in the boldest manner.

Sailing from this noble island to that of *Berkshire*, a little hilly wood of scattered trees, the views are various, rich, and truly picturesque : From the north side of it you look upon a fine sheet of water, to the *Great Island*, &c. and bounded by a great variety of shore. To the left, and in front, high ridges of mountains : To the right, most beautiful waving hills of inclosures ; some just rising enough to shew their hedges distinctly, and others hanging full to the eye ; beneath, a boundary of rough hills, and wild, uncultivated ground. To the left, you see *Crow Island*, and the ferry house, beneath a clump of trees, on the point of a promontory, jetting into the water, with an effect really exquisite. To the east, you look against a very fine bank of inclosures, scattered with trees.

Good grass lets from 2*l.* to 3*l.* They use it chiefly for the dairy : An acre and a quarter, or an acre and an half, they reckon sufficient for the summer feed of a cow ; and an acre to keep four or five sheep. Their breed of cattle is the long horned. The product of a cow, 6*l.* 6*s.* to 7*l.* They give four gallons of milk *per* day, on an average. To ten cows, they keep two or three swine. The winter food hay and straw ; of the first, about an acre and an half. The summer joist, 35*s.* A dairy-

trees. To the south, the lake is lost between two promontories, projecting into it against each other, and leaving a strait between : One is high and rocky ; the other, a line of waving wood and inclosures : Beyond it the distant hills, complete the view. The western prospect is a range of craggy hills ; some most beautifully fringed with hanging woods, and cut in the middle by a cultivated wave of inclosures, broken by woods, hedges, clumps, and scattered trees, and rising one above another, in the most picturesque irregularity. At the top, a farm-house, under a clump of trees ; the whole forming a bird's eye landscape of the most delicious kind. Nor can any thing be finer than the hanging woods on this side of the lake, broken by grass inclosures.

Sailing across the lake from *Berkshire Island* to the shore under these inclosures, which are called *Round Table*, nothing in nature can be more exquisite than the view, as you move, of a long, grass inclosure, at the water's edge, on the opposite shore, bounded by fine woods, except to the lake,

maid, they reckon, can take care of eight cows; calves suck from five to six weeks, both for rearing and the butcher.

Sheep they reckon, I know not for what reason, hurtful among milch cows; their flocks are from twenty to an hundred and fifty, the profit 5*s.* or 6*s.* *per* sheep; keep them all the year in the field; the medium of their fleeces 6 or 7 *lb.* from 3*d.* to 5*d.* *per lb.*

In the tillage of their lands they reckon four horses necessary for fifty acres of arable

lake, edged with some spreading trees, through which the view of the grass is an absolute picture. Other waving slopes of inclosures, to the right, hang to the lake, under the shade of a rough, wild hill, and down to a skirting of wood, on the water's edge, in the most pleasing manner. Behind, the rocky cliff of *Fourness Fells*, has a noble appearance, crowned with a sweep of wood.

Sailing under the western shore, you command most beautiful landscapes on the opposite one, consisting of banks of cultivated inclosures, scattered with trees, clumps of wood, farm houses, &c. and hanging to the water's edge in the most charming variety of situation; the fields in some places dipping in the very lake, in others thick woods rising from the water; scenes which call for the pencil of a genius to catch graces from nature beyond the reach of the most elaborate art.

Coming to *Ling Holm*, a small rocky island, with a few trees on it, you have a double view of the two shores, well contrasted, the western

land, use three or four in a plough, and do three rood a day. The annual expence of keeping a horse they reckon 6 *l*. They break up their stubbles for a fallow in *March*; plough in general about five or six inches deep; the common price 8 *s*. an acre.

Two shillings a day the hire of a cart and horse.

One hundred pounds they reckon sufficient for stocking a farm of 50 *l*. a year.

spread with hanging woods; and the eastern one cultivated hills, waving to the eye in the finest inequalities of surface. The distant hills are also seen in a bold stile over the low inclosures of *Rawlinson's Nab*, a promontory to the south.

Landing on the point of that promontory the view is very noble; it commands two sheets of water, north and south, each of four or five miles in length. That to the south is bounded in general by rough woody hills, broken in a few spots by little inclosures: In front of the promontory, several very beautiful ones, cut by irregular wood, and hanging to the water's edge in the finest manner; the whole crowned with craggy tops of hills.

But the view to the north is much the most beautiful. *Berkshire Island* breaks the sheet of water in one place, and adds to the variety of the scene without injuring its noble simplicity. *Common Nab*, a promontory from the east shore, projects into it in another place, variegated with wood and inclosures, waving over sloping hills, and crowned with rough uncultivated ground.

One

Tythes are generally taken in kind.

Poor rates 3*d.* in the pound; they spin flax and wool. Most of them drink tea twice a day.

Estates are either large, or under 100*l.* a year: Very few gentlemen of 2, 3, 4, or 500*l.* a year.

The farmers do not carry their corn above three miles.

One inclosure in particular breaks into the wood in the most picturesque manner imaginable. This end of the lake is bounded by cultivated hills already mentioned, which are viewed from hence to much advantage; they rise from the shore with great magnificence. To the left a ridge of hanging woods, spread over wild ground, that breaks into bold projections, contrasting the elegance of the opposite shore in the finest manner.

Having thus viewed the most pleasing objects from these points, let me next conduct you to a spot, where, at one glance, you command them all, in fresh situations, and each assuming a new appearance. For this purpose you return to the village, and taking the bye road to the turnpike, (not that by which you came,) mount the hill without turning your head, (if I was your guide I would conduct you behind a small hill, that you might come at once upon the view,) till you almost gain the top, when you will be struck with astonishment at the prospect spread forth at your feet; which, if not the most superlative view that nature can exhibit, she is more fertile in beauties than the reach of my imagination will allow me to conceive. It would be mere vanity

The following sketches of farms will give an idea of their general œconomy.

55 acres in all	4 young cattle
50 arable	2 fatting beasts
£. 56 rent	1 boy
4 horses	1 labourer.
10 cows	

Another,

70 acres in all	6 young cattle
50 arable	30 sheep
£. 65 rent	1 man
5 horses	1 boy
12 cows	1 maid
2 fatting beasts	1 labourer.

to attempt to describe a scene which beggars all description, but that you may have some faint idea of the outlines of this wonderful picture, I will just give the particulars of which it consists.

The point on which you stand is the side of a large ridge of hills that form the eastern boundaries of the lake, and the situation high enough to look *down* upon all the objects: A circumstance of great importance, and which painting cannot imitate: In landscapes, you are either on a level with the objects, or look *up* to them; the painter cannot give the declivity at your feet, which lessens the objects as much in the perpendicular line as in his horizontal one.

You look down upon a winding valley of about twelve miles long, every where inclosed with grounds which rise in a very bold and various manner; in some places bulging into mountains, abrupt, wild, and uncultivated; in others, breaking into rocks, craggy, pointed, and irregular:

Here,

Another,

35 acres in all	4 cows
30 arable	6 young cattle
£. 35 rent	1 boy
4 horses	1 maid.

Another,

46 acres in all	6 cows
38 arable	4 young cattle
£. 40 rent	20 sheep
4 horses	1 man.

Here, rising into hills covered with the noblest woods, and presenting a gloomy brownness of shade, almost from the clouds, to the reflection of the trees in the limpid water they so finely skirt: There, waving in slopes of cultivated inclosures, adorned with every object that can give variety to art, or elegance to nature; trees, woods, villages, houses, farms, scattered with picturesque confusion, and waving to the eye in the most romantic landscapes that nature can exhibit.

This valley is floated by the lake, which spreads forth to the right and left in one great but irregular expanse of transparent water. A more noble object can hardly be imagined. Its immediate shoar is traced in every variety of line that fancy can conceive, sometimes contracting the lake into the appearance of a winding river; at others retiring from it, and opening large swelling bays, as if for navies to anchor in; promontories spread with woods, or scattered with trees and inclosures, projecting into the water; rocky points breaking the shore, and rearing their bold heads above it. In a word, a variety that amazes the beholder.

L A B O U R.

In harvest, 1 *s.* a day, and board.

In hay time, ditto.

In winter, 6 *d.* and ditto.

Reaping *per* acre, 8 *s.* to 8 *s.* 6 *d.*

Ditching, 6 $\frac{1}{2}$ *d.* a rood.

Head man's wages, 9 *l.* to 10 *l.*

Next ditto, 6 *l.*

Boy of ten or twelve years, 3 *l.*

Dairy maid, 4 *l.* 4 *s.*

Other ditto, 50 *s.* to 3 *l.* 3 *s.*

Women *per* day in harvest, 8 *d.* and board.

In hay time, 6 *d.* and ditto.

In winter, 4 *d.* and ditto.

I M P L E M E N T S, &c.

No waggons.

A cart, 4 *l.* to 6 *l.*

But what finishes the scene with an elegance too delicious to be imagined, is, this beautiful sheet of water being dotted with no less than ten islands, distinctly commanded by the eye. The large one presents a waving various line, which rises from the water in the finest inequalities of surface: high land in one place, low in another; clumps of trees in this spot, scattered ones in that; adorned by a farm-house on the water's edge, and backed with a little wood—vyeing in simple elegance with *Boromean* palaces: Some of the smaller isles rising from the lake like little hills of wood, some only scattered with trees, and others of grass of the finest verdure; a more beautiful variety no where to be seen.

Strain

A plough, 15 s.
 A harrow, 7 s. 6 d.
 Few rollers.
 A scythe, 2 s. 3 d.
 A spade, 2 s. 6 d.
 Laying a share and coulter, 2 s.
 Shoeing, 1 s. 4 d.

P R O V I S I O N S, &c.

Bread—Oat, less than 1 d.
 Cheese, 3 d.
 Butter, 6 $\frac{1}{2}$ d. 18 oz.
 Beef, 2 $\frac{1}{2}$ d.
 Mutton, 2 d.
 Veal, 2 d.
 Pork, 4 d.
 Milk, $\frac{1}{2}$ d. a quart new; three quarts skim
 for 1 d.
 Potatoes, 8 d. a peck.

Strain your imagination to command the idea of so noble an expanse of water thus gloriously environed; spotted with islands more beautiful than would have issued from the happiest pencil. Picture the mountains rearing their majestic heads with native sublimity; the vast rocks boldly projecting their terrible craggy points: And in the path of beauty, the variegated inclosures of the most charming verdure, hanging to the eye in every form that can grace a landscape. If you raise your fancy to something infinitely beyond this assemblage of peculiar objects, you may have a faint notion of the unexampled beauties of this ravishing landscape.

Candles, 6 $\frac{1}{2}$ d.

Soap, 6 d.

Labourers house-rent, 15 s. to 30 s.

———— firing 25 s. to 30 s.

Lancaster is a flourishing town, well situated for trade, of which it carries on a pretty brisk one; possessing about one hundred sail of ships, some of them of a good burthen, for the *African* and *American* trades; the only manufactory in the town is that of cabinet ware; here are many cabinet-makers, who work up the mahogany brought home in their own ships, and re-export it to the *West Indies*, &c. &c. It is a town that increases in buildings; having many new piles, much superior to the old streets, and handsomely raised of white stone and slate.

At *Kabers* the soil is chiefly clay, but they have some light loam and some sand; lets at an average for 17 s. an acre. Farms from 10 l. to 70 l. a year.

Their course,

- | | |
|-----------|----------|
| 1. Fallow | 5. Wheat |
| 2. Barley | 6. Beans |
| 3. Oats | 7. Oats. |
| 4. Fallow | |

About *Cockram* they break up and sow,

- | | |
|-----------|----------|
| 1. Pease | 3. Oats. |
| 2. Barley | |

For wheat they plow three times, sow three bushels and a half, often in *February* and

and *March*, and get about twenty-six in return. For barley they stir three times, sow three bushels about *May* day, and gain thirty in return. They give but one ploughing for oats, sow six bushels, and gain forty in return. They stir but once for beans, sow four bushels, broad cast, the beginning of *March*, and reckon the average produce at thirty-six bushels. For pease they plow but once, sow three bushels, at the time with beans; the crop thirty bushels. For rye they plow thrice, sow three bushels, and gain four quarters in return.

But few turneps cultivated: The method is to plow twice for them, never hoe; the average value 8/. Use them for beasts and sheep.

For potatoes they plow thrice, dung the land well, and dibble them in eight or ten inches square; they afterwards weed them by hand: The crop from one hundred to two hundred bushels, at from 1s. to 1s. 4d. a bushel: They sow wheat after them, and get very fine crops, much superior to their common ones.

As to manures, marle is the grand one, which is found under all this country, and generally within sixteen or twenty inches of the surface; it lies in beds, many of them of a vast depth, the bottoms of some pits not being found: It is white, and as soft and soapy as butter. They lay about an hundred
two

two horse cart loads to an acre, but some farmers less, on to lays and stubbles. It lasts a good improvement for twenty years; costs about 4*l.* 10*s.* an acre. Their hay they stack in houses.

Good grass letts for 26*s.* an acre; is used chiefly for dairying; one acre and a quarter they reckon enough for a cow in summer, and one acre to four sheep. They marle a good deal, and find it a fine improvement, making the grass fatten well, and excellent for milk. Their breed of cattle the long horned. They reckon the profit of a cow at 4*l.* and a middling one to yield six gallons of milk a day. The winter food straw and hay, of the latter an acre and a quarter: Keep about a pig to two cows; and reckon a dairy maid to ten or twelve. The summer joist is 30*s.* keep them in winter in the house.

Their swine they fat to 4*l.* 10*s.* or 5*l.* value.

Their flocks of sheep rise from twenty to four hundred, having some commons in the neighbourhood; and reckon the profit at 7*s.* 6*d.* or 8*s.* a head: Keep them all the year on the commons: Their fleeces weigh, at a medium, 3 *lb.*

In tillage they account six horses necessary for fifty acres of arable land; use six in a plough, and do an acre a day. The annual expence *per* horse 4*l.* 15*s.* None of them

them cut straw into chaff. The time of breaking up their stubbles for a fallow is *Candlemas*; plough generally four or five inches deep. The hire of a cart and three horses is 4 s. 6 d. a day.

They reckon 150 l. necessary for hiring and stocking a farm of 50 l. a year.

Tythes compounded for.

Rates 3 d. in the pound. The employment of the poor women and children spinning flax.

Leases are both for terms of years and for lives.

The farmers carry their corn fourteen miles.

The following are the particulars of some farms in this country.

45 acres in all	12 sheep
13 arable	1 man
£. 50 rent	2 maids
4 horses	1 labourer
4 cows	1 plough
6 young cattle	3 carts.
3 fatting beasts	

Another,

62 acres in all	3 fatting beasts
16 arable	30 sheep
46 grafs	1 man
£. 63 rent	1 maid
5 horses	1 boy
10 cows	2 ploughs
8 young cattle	2 carts.

Another,

Another,

70 acres in all	40 sheep
30 arable	1 man
40 grafs	1 boy
£.75 rent	1 maid
8 horfes	1 labourer
12 cows	3 ploughs
10 young cattle	4 carts.
5 fatting beafts	

L A B O U R.

In harvest, 1 s. and board.

In hay time, ditto.

In winter, 6 d. and ditto.

Reaping wheat, 6 s. 6 d.

——— barley, 6 s.

——— oats, 5 s.

——— beans, 6 s.

Mowing grafs, 2 s. and ale.

Ditching, 6 d. to 8 d. *per* rood.

First man's wages, 9 l.

Next ditto, 5 l.

Boy of ten or twelve years, 40 s.

A dairy maid, 3 l.

Other ditto, 40 s. to 50 s.

Women *per* day in harvest, 8 d. and board.

In hay time, 6 d. and ditto.

In winter, 4 d. and ditto.

They reckon the value of a man's board,
washing, and lodging, 3 s. 6 d. a week.

I M P L E-

IMPLEMENTS, &c.

No waggons.

A cart, 8 *l.* to 9 *l.*

A plough, 15 *s.*

A harrow, 11 *s.*

A roller, 10 *s.* 6 *d.*

A scythe, 2 *s.* 6 *d.*

A spade, 3 *s.*

Laying a share, 8 *d.*

——— coulter, 8 *d.*

PROVISIONS, &c.

Bread — oat, 11 *lb.* for 1 *s.*

Cheese, 3 *d.*

Butter, 8 *d.* 16 *oz.*

Beef, 2½ *d.*

Mutton, 2½ *d.*

Pork, 4 *d.*

Milk, ½ *d.* a pint.

Potatoes, 3 *d.* a peck.

Turneps, 1½ *d.* ditto.

Candles, 7½ *d.*

Soap, 6 *d.*

Labourers house-rent, 20 *s.*

———— firing, 20 *s.*

Tools, 10 *s.* 6 *d.*

Around *Garstang* are several variations which deserve noting. The soils are clay, black moory, on clay, and light loam; let on an average at 17 *s.* an acre. Farms from 10 *l.* to 150 *l.* a year. Their course,

1. Fallow

- | | |
|-----------|------------------------|
| 1. Fallow | 4. Barley |
| 2. Wheat | 5. Oats, and |
| 3. Beans | then left to graze it- |

self; and they assured me very gravely the grass was excellent: They plow thrice for wheat, sow three bushels a fortnight before *Michaelmas*, and reckon thirty-five bushels the average produce. For barley they stir from one to four times, sow three bushels *per* acre the end of *April*; and gain thirty bushels an acre. For oats they plow but once, sow seven bushels an acre in *March*, and gain on an average forty-five bushels. They stir but once for beans, sow four bushels and a half, broad cast, both under furrow, and above, the end of *February* or beginning of *March*; never hoe them: They gain thirty bushels. Sow neither pease nor rye, and scarce any turneps. Clover with both barley and oats; and generally mow it for hay.

For potatoes they dig all the land nine inches deep, and then dung it well; dibble in the setts nine inches asunder; reckon a peck to set a perch of twenty-one feet: They hand-weed them, and gain upon an average three bushels and a half *per* perch, or four hundred and fifty bushels *per* acre; after them they sow corn of all sorts, and get great crops.

Marle is their principal manure, both white, black, blue, sandy, and some shell marle.

marle. They sometimes find perfect cockle and periwinkle shells, nine yards deep, in beds of marle. The surface is from one to four feet of thickness above it: Twenty-three square yards does an acre. It is quite soft and soapy. The land will be for ever the better for it: It does best on light soils. The marle husbandry here is to plow three years, and let it lie three. They find a second, and even a third marling, to answer well: The average expence about 4*l.* per acre.

Lime they also use: Lay fifty windles per acre, at 1*s.* 4*d.* per windle; and sometimes up to eighty and an hundred; the expence to 5*l.* and 6*l.* 10*s.* per acre; lasts generally four or five years in great heart; but, with very good management, for twenty years.

Good grass lets from 30*s.* to 35*s.* an acre; they use it chiefly for cows, and reckon an acre and a quarter sufficient for the summer feed of a cow, and four sheep to the acre. They manure their pastures with both marle and lime. The breed of their cattle long horned. And it will not here be amiss to remark, that *Lancashire* is famous for this long horned breed, so that cows, which come of thorough-bred bulls (and they are very curious in their breed) will sell at very high prices, up to 20 and 30*l.* a cow, if they promise well for producing
good

good bulls, which sometimes sell for 100 *l.* or 200 *l.* a bull.

They fat their oxen to forty and sixty stone.

Their swine, in common, to twenty stone : One in particular, to thirty.

They reckon the product of a cow from 3 *l.* 10 *s.* to 4 *l.* Keep scarce any swine the more upon account of their dairies. Feed their cows in winter upon straw and hay ; and reckon an acre of the latter necessary. The summer joist 20 *s.* to 30 *s.* Keep them in both field and house in the winter.

Their flocks of sheep rise from twenty to two hundred, calculate the profit at 4 *s.* or 5 *s.* keep them in both winter and spring on the commons : The mean weight *per* fleece 3 *lb.*

They reckon twelve or thirteen horses necessary for the management of an hundred acres of arable land. Use four in a plough, and do an acre a day. The annual expence of keeping horses 5 *l.* 10 *s.* each. The summer joist 30 *s.* to 50 *s.* and 3 *s.* 6 *d.* a week. They break up their stubbles for a fallow in *March* ; plow in general six inches deep. The price *per* acre 8 *s.* Know nothing of chopping straw for chaff. Hire of a cart, three horses, and a driver, 4 *s.* a day.

In the stocking of farms 500 *l.* is necessary to stock a grazing one of 150 *l.* a year ; but 200 *l.* sufficient for the common ones of 100 *l.* a year.

Land

Land sells at from thirty to forty years purchase.

Tythes both gathered and compounded for.

Poor rates in *Garstang* 5*d.* in the pound; in villages 2*d.* They spin cotton and flax. All drink tea.

But few small estates.

The farmers carry their corn twelve miles.

Many leases for three lives; and some on terms of years.

The following particulars of farms will shew the general œconomy of the country.

200 acres in all	25 young cattle
70 arable	50 sheep
130 grafs	2 men
£. 180 rent	2 boys
12 horses	2 maids
10 cows	2 labourers.
8 fatting beasts	

Another,

160 acres in all	4 fatting beasts
60 arable	200 sheep (common right)
100 grafs	1 man
£. 140 rent	2 maids
9 horses	3 boys
15 cows	2 labourers.
18 young cattle	

Another,

110 acres in all	£. 85 rent
50 arable	8 horses
60 grafs	6 cows
VOL. III.	M 15 young

15 young cattle	1 maid
2 fattening beasts	2 boys
26 sheep	1 labourer.
1 man	

L A B O U R.

In harvest, 1*s.* a day and board.

In hay-time, 10*d.* and ditto.

In winter, 6*d.* and ditto.

Reaping wheat, 6*s.*

———— barley, 5*s.* 6*d.*

———— oats, 5*s.* 6*d.*

———— beans, 7*s.* to 8*s.* 6*d.*

Ditching, 3*d.* to 5*d.*

First man's wages, 10*l.*

Next ditto, 7*l.*

Boy of ten or twelve years, 38*s.*

Dairy maid, 3*l.* 10*s.*

Other ditto, 3*l.*

Women *per* day, in harvest, 6*d.* and board.

In hay time, 5*d.* and ditto.

In winter, 4*d.* and ditto.

I M P L E M E N T S, &c.

Scarce any waggons, but coming into use slowly.

A cart, 12*l.*

A plough, 20*s.*

A harrow, 10*s.*

No rollers.

A scythe, 3*s.* 6*d.*

A spade, 3*s.*

Shoeing, 1*s.* 4*d.*

P R O-

PROVISIONS, &c.

Bread — Oat, $\frac{3}{4}$ and 1 d. per lb.
 Cheefe, 3 d.
 Butter, 7 d. 16 oz.
 Beef, 3 d.
 Mutton, 3 d.
 Pork, 3 d.
 Candles, 6 $\frac{1}{2}$ d.
 Soap, 6 d.
 Labourers house-rent, 15 s. to 40 s.
 ——— firing, 30 s.

BUILDING.

Oak timber, 1 s. 6 d. to 3 s.
 Ash, 1 s. 4 d.
 Elm, 1 s. 4 d.
 Soft woods, 6 d.
 Mason, per day, 1 s. 6 d. and beer.
 Carpenter, 1 s. and ditto.
 Walling, 7 d. a yard the workmanship.

From *Garstang* to *Wigan* land letts from 15 s. to 3 l. an acre, average 25 s. and farms rise from 30 l. to 100 l. a year.

From *Wigan* to *Warrington* land from 15 s. to 3 l. 10 s. and farms 15 l. to 100 l. a year. At *Warrington* the manufactures of sail-cloth and facking are very considerable. The first is spun by women and girls, who earn about 2 d. a day. It is then bleached, which is done by men, who earn

10 s. a week ; after bleaching it is wound by women, whose earnings are 2 s. 6 d. a week ; next it is warped by men, who earn 7 s. a week ; and then starched, the earnings, 10 s. 6 d. a week. The last operation is the weaving, in which the men earn 9 s. the women 5 s. and boys 3 s. 6 d. a week.

The spinners in the facking branch earn 6 s. a week, women ; then it is wound on bobbins by women and children, whose earnings are 4 d. a day ; then the starchers take it, they earn 6 s. a week ; after which it is wove by men, at 9 s. a week. The sail-cloth employs about three hundred weavers, and the facking an hundred and fifty ; and they reckon twenty spinners and two or three other hands to every weaver.

During the war the sail-cloth branch was very brisk, grew a little faint upon the peace, but is now, and has been for some time, pretty well recovered, though not to be so good as in the war. The facking manufacture was also better in the war ; but is always brisk.

The spinners never stand still for want of work ; they always have it if they please ; but weavers sometimes are idle for want of yarn, which, considering the number of poor within reach, (the spinners of the facking live chiefly in *Cheshire*,) is melancholy to think of.

Here

Here is likewise a small pin-manufactory, which employs two or three hundred children, who earn from 1 s. to 2 s. a week.

Another of shoes for exportation, that employs four or five hundred hands, (men,) who earn 9 s. a week.

P R O V I S I O N S, &c.

Bread — Oat and barley mixed.

Butter, 7 $\frac{1}{2}$ d. 16 oz.

Cheese, 3 $\frac{1}{2}$ d.

Mutton, 3 d.

Beef, 3 d.

Veal, 3 d.

Pork, 4 d.

Bacon, 6 d.

Milk, $\frac{1}{2}$ d. a half pint.

Potatoes, 3 $\frac{1}{4}$ d. a peck.

Poors house-rent, 20 s. to 30 s.

—— firing, 16 s.

Upon the whole, these manufactures are very advantageous, as they employ above eleven thousand hands.

At *Bowls*, between *Warrington* and *Prescot*, the soils are clay and rich loam, lett from 10 s. to 25 s. an acre. Farms from 20 l. to 80 l. a year. Their courses,

1. Fallow

2. Wheat

3. Oats.

Also, 1. Fallow

2. Wheat

3. Oats

4. Clover.

Of wheat they get sixteen bushels *per* acre; oats twenty-five, and beans sixteen. Their principal manure is marle; lay on an acre two or three rood, at eight square yards each, costs 3 *l.* an acre, and lasts good seven or eight years: Use it chiefly for clay soils. Lime they lay on warm dry lands, an hundred and twenty-five bushels *per* acre, costs 3 *l.* 10*s.* or 4 *l.* They plow up their stubbles at *Candlemas* for a fallow. The produce of a cow they reckon at 3 *l.*

The following are the particulars of some farms in this neighbourhood.

40 acres in all	3 horses
12 arable	4 cows
28 grafs	6 young cattle
£. 50 rent	1 maid.

Another,

65 acres in all	6 young cattle
20 arable	20 sheep
45 grafs	1 man
£. 58 rent	1 boy
4 horses	1 maid.
6 cows	

Another,

90 acres in all	13 young cattle
30 arable	20 sheep
60 grafs	1 man
£. 85 rent	1 maid
6 horses	1 boy.
10 cows	

The

The town of *Liverpool* is too famous in the trading world to allow me to pass it without viewing: I wanted to be informed of a few particulars relative to the shipping, imports, exports, and rise and fall of their commerce, a little of which I gained, tho' by no means what I wished. I walked over the town for a view of the publick buildings, &c. the following are the minutes I took.

The exchange is a quadrangular building surrounding a court, which is inclosed by a double row of *Tuscan* pillars, and over them another of *Corinthian* ones; but the area is so small, that it has more the appearance of a well than the court of an edifice. In this building is the assembly-room, sixty-five feet by twenty-five, handsomely fitted up; but the music-gallery at one end is a mere over-grown shelf; the common blunder in nine assembly-rooms out of ten. The card-room is preposterous; a narrow slip of about eleven feet wide; so that *Lilliputian* card tables must be made on purpose for the room, or no passage remain around them for spectators. From the cupola on the top of the building is a very fine view of the town.

The new church, dedicated to *St. Paul*, is a building that does credit to the town: It stands in the centre of a square, so that you may view it to much better advantage than its namesake at *London*; but though handsome in several respects, yet will it by

no means stand so well the test of examination. The cupola is by no means striking; it does not rise in a bold stile; its being ribbed into an octagon is disadvantageous; nor is there simplicity enough in the lantern. There is a great heaviness in the breadth of the space between the capitals of the pillars and the cornice. Within, there is a central circular area of forty feet diameter, inclosed by pillars of the *Ionic* order: There is much lightness, and a simple elegance in it that is pleasing; but all hurt by the absurdity of the square cornices above the pillars, which project so much as to be quite disgusting. This church was raised at the expence of the parish, and cost 12,000*l*.

But the glory of *Liverpool* is the docks for the shipping, which are much superior to any mercantile ones in *Britain*: One very fine new one, of a circular form, is finished, and defended by a pier, all excellently well faced with stone, and perfectly secure from storms. Out of this is an entrance into another, called the *New Dock*, now executing, of a large size, capable of containing several hundred sail, and faced in the same manner all round with large stone: Out of this is to be a passage into another very capacious one, called the *Dry Pier*, and this again leads into two others, called the *Old* and *South Docks*; and likewise has an entrance by the river from the sea:

sea: Into this likewise open three very noble docks for building large ships, admirably contrived. These three, *Dry Pier*, and *Old* and *South Docks*, are all totally surrounded by the town, so that ships of four, five, six, and some of nine hundred tons burthen, lay their broad sides to the quays, and goods are hoisted out of them, even into many of the warehouses of the merchants.

A little out of the town is a very pretty new walk, spread on one side with small plantations, and looking on the other down upon the town and river: A coffee-house, &c. built new upon it: It is lately done, and a good improvement.

There is a manufacture of porcelane at this place, which employs many hands; the men earn in it from 7 s. to 10 s. a week. Likewise a stocking manufactory, in which they earn from 7 s. to 9 s. Also two glass-houses, in which the earnings are 9 s. or 10 s. a week.

Poor rates in *Liverpool* 1 s. in the pound.

Land, five miles round it, lets, at an average, at 31 s. 6 d. per acre.

They suppose the number of inhabitants to be near forty thousand.

PROVISIONS, &c.

Bread, $1\frac{1}{2}$ d.

Butter, 8 d. 18 oz.

Cheese, $3\frac{1}{2}$ d.

Beef,

Beef, $2\frac{1}{2} d.$
 Mutton, $3\frac{1}{2} d.$
 Veal, $4 d.$
 Pork, $4 d.$
 Bacon, $7 d.$
 Milk, $\frac{1}{2} d.$ a pint.
 Potatoes, $3 d.$ a peck.
 Candles, $7\frac{1}{2} d.$
 Soap, $7\frac{1}{2} d.$
 Poors house rent, 20s. to 30s.
 ——— firing, 15s. to 20s.

The trade of *Liverpool* increased regularly during the whole course of the war, and was at its height when the new regulations of the *American* trade took place: The stopping the trade with the *Spaniards* in *America*, with some other measures at that time relative to the Colonies, gave a blow to the commerce of this town, which she has not recovered; so that they have since been, and are now, much upon the decline: A great number of ships are laid by in the harbour, and a general languor spread over their whole trade.

The husbandry around *Ormskirk*, particularly about *Halsall*, is as follows: The soil is in general a sandy loam; letts, upon an average, at 15s. *per* acre. Farms from 5*l.* to 100*l.* a year, but chiefly about 40*l.* Their course is,

- | | |
|-----------------|-----------|
| 1. Break up the | 2. Barley |
| ground, and | 3. Wheat |
| sow Oats | 4. Oats |

- | | |
|--------------------|---------------------|
| 5. Vetches | then comes to grafs |
| 6. Barley | of itself, and very |
| 7. Clover three or | fine grafs it must |
| four years, and | be. |

They plow five times for wheat, sow a bushel and half, and reap from twenty-five to thirty-five bushels. For barley they plow thrice, sow two bushels and an half, and get about twenty in return. They stir but once for oats, sow four bushels ; the crop twenty. For beans they give three earths, sow two bushels and half, broad cast, never hoe them, and get upon an average about thirty. They use very little rye or pease. Their clover they reckon more profitable than corn ; get very great crops.

They used always to dig for potatoes, but have of late changed that method for plowing : They set them upon both grafs and tillage land, but always dung well. The soil they prefer is the light sandy. They lay the slices in the furrows after the plough, so as to come up about nine inches asunder every way ; while growing they hand weed them. A common crop is an hundred and fifty bushels ; and a good acre worth 10 £.

The principal manure used here is marle, which they lay upon the sandy soils ; it costs about 3 £. an acre, and lasts good for twenty years ; improves best for wheat and oats. They stack their hay in the farm yards, but
know

know nothing of chopping the corn stubbles.

Good grass lets at 30 s. an acre; they use it both for fattening, dairying, and breeding; two acres they reckon necessary to summer a cow; never manure it.

They reckon the product of a cow at 5 l. and upon a medium fix gallons of milk a day. They keep about two or three hogs to ten. The winter food is hay and straw, of the first about an hundred and twenty stone 20 lb. each) is sufficient; and have it in the house all winter. The calves they bring up by hand, one month for the butcher, and two months for rearing. They reckon a dairy-maid can take care of ten cows. The summer joist is 20 s.

The flocks of sheep rise from twenty to an hundred; the profit *per* head 10 s. They keep them all winter and spring upon grass. The average weight of the fleeces about 2 lb.

In their tillage they reckon six horses necessary for an hundred acres of arable land; use two or three in a plough, and do an acre a day. The annual expence *per* horse 5 l. The summer joist 40 s. They break up the stubbles for a fallow in *February* or *March*; the common price *per* acre of plowing 4 s. to 5 s. They stir six inches deep.

They know nothing of cutting straw into chaff.

The

The hire of a cart, three horses, and a driver *per* day, is 5*s*.

In the hiring and stocking of farms they reckon 150*l*. sufficient for one of 50*l*. a year.

Land sells from thirty to forty years purchase. No little estates.

Tythes are taken in kind.

Poor rates 6*d*. in the pound: The employment spinning cotton. Some of them drink tea.

The farmers carry their corn seven or eight miles.

Leases run in general on terms of years, seven, fourteen, or twenty-one; but some on three lives.

The general œconomy will be seen from the following sketches:

400 acres in all	40 sheep
100 arable	4 men
300 grafs	2 boys
£.200 rent	2 maids
20 horses	2 labourers
30 cows	4 ploughs
30 young cattle	2 carts.
10 fatting beasts	

Another,

60 acres in all	15 cows
20 arable	10 young cattle
40 grafs	1 man
£.120 rent (it is near	1 maid
the town)	1 plough
3 horses	1 cart.

Another,

60 acres in all	3 fatting beasts
20 arable	20 sheep
40 grafs	1 man
£. 50 rent	1 maid
3 horfes	1 plough
6 cows	1 cart.
10 young cattle	

Another,

135 acres in all	40 sheep
70 arable	2 men
65 grafs	2 boys
£. 95 rent	2 maids
8 horfes	2 labourers
20 cows	3 ploughs
6 young cattle	3 carts.

L A B O U R.

In harvest, 1 s.

In hay time, 8 d.

In winter, 10 d. (this they fay is because the work is so much harder.)

Mowing grafs, 1 s. 3 d.

Ditching, 8 d. to 1 s. a rood.

Thrashing wheat, 3 d. a bushel,

———— barley, 2 d.

———— oats, 1 $\frac{1}{2}$ d.

———— beans, 2 d.

Head man's wages, 7 l.

Next ditto, 5 l.

Boy of ten or twelve years, 30 s.

Dairy maids, 3 l.

Other

Other maids, 2 *l.* 10 *s.*
 Women *per* day in harvest, 1 *s.*
 In hay time, 8 *d.*
 The value of a man's board, washing, and
 lodging, 9 *l.*

IMPLEMENTS, &c.

No waggons.
 A cart, 4 *l.*
 A plough, 20 *s.*
 A harrow, 10 *s.*
 No rollers.
 A scythe, 3 *s.*
 A spade, 3 *s.*
 Shoeing, 1 *s.* 4 *d.*

BUILDING.

Bricks, *per* thousand, 10 *s.*
 Oak, 1 *s.*
 Mason, *per* day, 2 *s.*
 Carpenter, 2 *s.*
 Farm houses of brick and slate.

In the parish are,

2000 acres	20 poor
100 farms	200 horses
£.2000 rent	400 cows
£. 50 rates	200 sheep
£. 25 highways	100 fatting beasts.
55 labourers	

On the western side of *Halfell*, near the
 sea, lie about one thousand acres of bog,
 called

called *Halfell-Moss*, which about thirty years ago, was not, on an average, worth 1 *d.* an acre : Turfs were dug out of part of it for burning. Mr. *Edward Segar*, of *Barton-House*, who possessed a considerable part of it, began the improvement of it, which has since been conducted by Mr. *Parke*, of *Liverpool*.

It was so very soft, that no cattle could go on it during the greatest part of the year ; for which reason the first business was draining. It was for that purpose divided into fields of about two acres each, by ditches five feet wide at top, three feet deep, and three feet wide at bottom ; the digging these cuts cost 4 *d.* per rood.

In about a year the ditches were half closed up ; and all cleaned out again. Then another year elapsed before any further improvement was undertaken : This time was given it for a gradual draining, that the surface might be tolerably firm for the bearing of men and horses.

At the end of the second year it was consolidated enough to bear men for paring and burning it, which was performed in winter, two or three inches deep. The paring costs 7 *s.* per acre, and the burning 1 *s.* 6 *d.*

After this it was ploughed with one horse in boots, shod with boards of an oval shape, eighteen inches wide, which enabled the horse to move securely upon the bog. The
turfs

turfs raised by this plowing were also burnt; for the first paring is often of so puffy a nature as to afford scarce any ashes; but the second, coming after a greater consolidation, and the plough cutting so much deeper than a man, the ashes are more in quantity and of a better nature. This second burning was performed the beginning of *August*.

The ashes were plowed in immediately, quite hot, to the depth of about three or four inches, and upon that one earth, without any harrowing either before or after; rye was sown the beginning of *September*, near a bushel to an acre, which generally produced about twenty-five in return.

This rye was off the land time enough for another burning of the old furrows, which cost about 3*s.* an acre; after which it was again plowed, and sown with rye as before, and the crop nearly the same.

With this second crop of rye much natural grass came, which was left to itself for three years, but kept pastured by cattle, and turfed very well.

In the *April* after these three years, it was plowed as at first with one horse, and the furrows burnt; then it was stirred a second time, and sown with oats, four bushels *per* acre, and the crop was near thirty. After they were cleared from the land, it was burnt again as in the former course, and after a plowing, a second crop

of oats sown, that yielded much the same as the last. The grass again coming of itself, it was left to graze for four years, and was a very good pasture.

This was the general management: Taking two crops of rye or oats, and then letting it lie in grass for three or four years, and always breaking up with burning: And in this management several hundred acres were and are adjudged by many farmers, to be worth from 7*s.* 6*d.* to 15*s.* *per* acre.

As the rye is sown without harrowing, it should be while corn is plentiful in the field, that vermine may have no particular temptation to attack it.

This system of management has been found, *on experience*, to be very advantageous; it would be, therefore, impertinent to prescribe, for such a peculiar soil, any improvements; but I cannot avoid remarking, that if grass seeds were sown with the second corn crop, the succeeding pasturage would probably be much better. But the profit of advancing such land to 10*s.* an acre is a vast improvement; it calls strongly for attacking the numerous bogs in some other parts of this kingdom. This bog is the same sort as that described at *Thorne*, in the first volume; the proprietors of which know not of any method of improving it.

Returning to *Warrington*, I took the road to *Altringham*; the country of various soils,
but

but chiefly loam and sand; letts from 13 s. to 22 s. *per* acre. About that place it is chiefly sandy, and some clay and light loam; letts from 15 s. to 25 s. an acre.

Farms from 20 l. a year to 300 l. The course of crops,

1. Fallow

2. Wheat

3. Oats

4. Clover for different terms.

They plow three or four times for wheat, sow two bushels a fortnight or three weeks before *Michaelmas*, and reckon the average produce at thirty bushels. For barley they plow thrice, sow four bushels the beginning of *May*, and gain in return about thirty-three at a medium. For oats they give but one plowing, sow four bushels and an half the beginning of *March*, and get about forty-five at a medium. They give two or three earths for beans, dibble them in, three bushels *per* acre, at six inches asunder, and hand weed them while growing; the crop forty bushels. They sow wheat after them, and get good crops. For pease they also plow twice or thrice, dibble them as beans, and hand weed them; the crop about three quarters.

But few turneps are cultivated; such as do sow them, plow the land three or four times; no hoeing, but the crop is thinned by hand for serving the markets. Average value from 4 l. to 10 l. an acre. Use them

for all sorts of cattle. Clover they sow with barley and oats, use it chiefly for hay, of which they get two tons *per* acre at a mowing. Tares they sow for hay, and get four loads an acre, three-horse cart loads, worth 20s. a load, and fallow after them for wheat. Buckwheat they have sown for a dressing for wheat, by plowing it in, and find it does best on dry sandy land.

They dig for potatoes generally after oats, dunging the land well; they dibble the setts in; twenty-two bushels do an acre. Some hand-weed them while growing; others hand-hoe them. The crop about 320 *cwt.* *per* acre, (120 *lb.* each;) some twice as much. Mr. *Thomas Warburton*, of *Altringham*, made for some years 25 *l.* a year from one acre of land by potatoes. They sow wheat or barley after them, and are sure of a great crop.

Marle is their great manure; they have it of all sorts, red, white, blue, black, and brown; they reckon it does best on the ground it is under; lay from twenty-four to forty square yards on an acre. Upon clay they lay thirty-two; upon sand forty; and upon bog the same. It costs about 1s. a yard. It will be an improvement in some measure for ever, if not kept too long in tillage. They have found from experience, that it answers well to marle twice.

Lime

Lime they also use both upon clay and sand, but does best upon the former: They lay on an acre eighty or an hundred loads, at ten pecks each. Another and excellent way of using it, is, to plant potatoes upon the stuff thrown out of their ditches, and afterwards mix it up with lime. It costs 1 s. a load thirteen miles off. Their boggy land they pare and burn. They buy dung at *Manchester* at from 4 d. to 7 d. a ton, but agree for it in the lump. They stack their hay at home.

Good grafs letts at 30 s. an acre; they apply it both to fattening and dairying; and reckon that an acre is sufficient to keep a cow through the summer; but they both dung and marle it. Their breed of horned cattle is the long horns; fat them from thirty to fifty stone. The product of a cow they reckon at 5 l. 10 s. and the average quantity of milk five gallons a day. They do not keep above two or three hogs to twenty-six cows. When dry, the winter food is straw; but near and after calving, hay and ground oats; of the first about one half, or three quarters of an acre. The calves do not suck above two or three weeks for the butcher; but, for rearing, all are brought up by hand. A dairy-maid usually takes care of seven or eight cows. The summer joist is 30 s. In the winter they are kept in the house.

Hogs they fat up to twenty-five stone.

The flocks of sheep are not many near the town, but at a small distance they rise from twenty to two hundred; the profit they calculate at 10 s. a head. The winter spring food is a few turneps, but, in general, grass alone. The average of fleeces about 4 $\frac{1}{2}$ lb.

In their tillage they reckon six horses necessary for one hundred acres of arable land: They use three or four in a plough, and do an acre a day. They calculate the whole annual expence *per* horse at 4 l. 16 s. The summer joist 40 s. The price *per* acre of ploughing is 5 s. 3 d. and the time of breaking up their stubbles for a fallow, after the barley sowing. The general depth five inches.

They know nothing of cutting straw into chaff.

The hire *per* day of a cart, three horses, and a driver, 5 s.

In the hiring and stocking of farms, they reckon that, with particular management, a man may stock one of 100 l. a year for 200 l. but that for 300 l. many such are taken. That sum they divide in the following manner:

Twenty beasts,	-	£. 120
Five horses,	-	40
Forty sheep,	-	16
Pigs,	-	2
		Harness,

Harnes,

Chains,	-	0	7	0
Backband,	-	0	5	0
Bellyband,	-	0	1	0
Halms,	-	0	3	0
Collar,	-	0	7	0
Halter,	-	0	3	0

1 6 0

5 l. s.
6 10

Two road carts,	-	-	14
Three home ditto,	-	-	12
Sundry small implements,	-	-	4 10
Two ploughs,	-	-	2
Harrows,	-	-	4
Roller,	-	-	1
House-keeping,	-	-	30
Labour,	-	-	35
Seed,	-	-	20

£. 307

Land sells at thirty years purchase. Many estates of 2 or 300 l. a year.

Tythes are generally gathered; poor rates from 1 s. 6 d. to 2 s. 6 d. in the pound; their employment spinning flax and wool. All drink tea.

The farmers carry their corn eight miles.

Leases run from seven to fourteen years; some for three lives.

The general œconomy of the country will be seen from the following sketches of farms.

40 acres in all	2 young cattle
10 arable	1 boy
30 grafs	1 maid
£. 40 rent	2 carts
2 horses	2 ploughs.
7 cows	

Another,

200 acres in all	60 sheep
100 arable	3 men
100 grafs	2 boys
£. 300 rent	2 maids
10 horses	2 labourers
26 cows	1 waggon
5 fattening beasts	4 carts
20 young cattle	3 ploughs.

Another,

110 acres in all	20 sheep
40 arable	1 man
70 grafs	1 boy
£. 90 rent	1 maid
4 horses	1 labourer
15 cows	2 carts
2 fattening beasts	2 ploughs.
8 young cattle	

Another,

87 acres in all	£. 72 rent
40 grafs	4 horses
47 arable	6 cows
	3 fattening

3 fatting beasts	1 maid
10 young cattle	1 labourer
30 sheep	2 carts
1 boy	1 plough.

L A B O U R.

In harvest, 1 s. 3 d. or 1 s. and beer.

In hay time, 1 s. and beer.

In winter, 10 d.

Reaping wheat, *per* acre, 3 s. to 4 s.

———— barley, 4 s. to 5 s.

———— oats, 3 s. to 4 s.

———— beans, 4 s. 6 d.

Mowing grass, 1 s. 6 d. to 2 s. 6 d.

Ditching, 5 d. to 8 d.

Thrashing wheat, 1 s. 2 d. *per* five bushels.

———— barley, 1 $\frac{1}{2}$ d. *per* bushel.

———— oats, 1 s. 6 d. or 2 s. *per* 20 measures.

———— beans, 1 s. *per* five bushels.

Digging, 8 d. *per* rood.

Head man's wages, 6 l. to 10 l.

Next ditto, 5 l.

Boy of ten or twelve years, 40 s.

Dairy maid, 4 l. to 5 l.

Other ditto, 2 l. to 3 l.

Women *per* day in harvest, 1 s. and beer.

———— In hay time, 8 d. and ditto.

Value of a man's board, washing, and lodging, 3 s. 6 d. a week.

IMPLEMENT S, &c.

Few waggons.

A cart, 8 l.

A plough, 20 s.

A harrow,

A harrow, 25 s.
 A scythe, 2 s. 6 d. to 3 s.
 A spade, 4 s.
 Shoeing, 1 s. 4 d.

P R O V I S I O N S, &c.

Bread — wheat and barley mixed,
 Cheese, $3\frac{1}{2}$ d. per lb.
 Butter, 7 d. 18 oz.
 Beef, 2 d. to $2\frac{1}{2}$ d.
 Mutton, 3 d.
 Veal, $3\frac{1}{2}$ d.
 Pork, $3\frac{1}{2}$ d.
 Bacon, 7 d.
 Milk, new, $\frac{1}{2}$ d. per pint, skim, $\frac{1}{2}$ d. per quart.
 Potatoes, 4 s. 6 d. per 212 lb.
 Labourers house-rent, 30 s.
 ——— firing, 20 s.

B U I L D I N G.

Bricks, per thousand, from 8 s. 6 d. to 20 s.
 Oak timber, 8 d. to 2 s.
 Ash ditto, 8 d.
 Mason per day, 1 s. 6 d.
 Carpenter ditto 1 s. 6 d.

I forgot to tell you, that one or two sensible farmers in this neighbourhood have of late come into the way of making hollow drains for the improvement of their wet lands. They dig them from two feet to three or four deep, set two bricks on edge along the bottom, and lay another over them in this manner, Pl. V. Fig. 1. They are then

then filled up with the moulds. The digging, laying, and filling cost 4 *d.* a rood.

From *Altringham* I took the road to *Manchester*, with design, not only to view the manufactures of that town, but to make it my head quarters from thence to go the tour of his Grace the Duke of *Bridgwater's* navigation, about which such wonders are abroad; if only half are true, I shall be not a little entertained.

The *Manchester* manufactures are divided into four branches.

The fustian

The check

The hat

The worsted small wares.

All these are subdivided into numerous branches, of distinct and separate work. In that of fustians are thirteen.

N^o. 1. Corded dimities

2. Velvets

3. Ververets

4. Thicksets

5. Pillaws

6. Quilts

7. Petticoats

8. Draw-boys

9. Diapers

10. Herringbones

11. Jeans

12. Jeanets

13. Counterpanes.

These

These goods are worked up of cotton alone, of flax and cotton, and of *Hamborough* yarn. All sorts of cotton are used, but chiefly the *West Indian*. These branches employ men, women, and children.

In the branch N^o. 1. Men earn from 3 s. to 8 s. a week.

Women the same.

No children employed in it.

2. Men from 5 s. to 10 s.

Neither women or children.

3, and 4. Men from 5 s. to 10 s. average 5 s. 6 d.

Women as much.

Children 3 s.

5. Men from 4 s. to 5 s.

Women the same.

Children 2 s. 6 d.

6, and 7. Men from 6 s. to 12 s.

Neither women or children.

8. Men, at an average, 6 s. but a boy paid out of it.

No women.

9. Men from 4 s. to 6 s.

Women as much.

No children.

10. All children, 1 s. 6 d.

11. Men from 4 s. to 10 s.

No women or children.

12. Women 1 s. 6 d. to 3 s. 6 d.

Children the same.

13. Men from 3 s. to 7 s.

Neither women or children.

These

These branches of manufacture work both for exportation and home consumption: Many low priced goods they make for *North America*, and many fine ones for the *West Indies*. The whole business was exceedingly brisk during the war, and very bad after the peace; but now are pretty good again, though not equal to what they were during the war. All the revolutions of late in the *North American* affairs are felt severely by this branch. It was never known in it that poor people applied for work and could not get it, except in the stagnation caused by the stamp act.

I enquired the effects of high or low prices of provisions, and found, that in the former the manufacturers were industrious, and their families easy and happy; but that in times of low prices the latter starved; for half the time of the father was spent at the ale-house. That both for the good of the masters, and the working people, high prices were far more advantageous than low ones: And the highest that were ever known much better than the lowest.

All in general may constantly have work that will: And the employment is very regular: The master manufacturers not staying for orders before the people are set to work, but keep, on the contrary, a great many hands in pay, in expectation of the spring orders.

The

The principal sub-divisions of the check branch are the following.

N^o.

- | | |
|----------------------|-----------------------------|
| 1. Handkerchiefs. | ginghams. |
| 2. Bed ticking. | 7. Soufees. |
| 3. Cotton·hollands. | 8. Damascus's. |
| 4. Gowns. | 9. <i>African</i> goods, in |
| 5. Furniture checks. | imitation of the |
| 6. Silk and cotton | <i>East Indian</i> . |

These branches employ both men, women, and children; their earnings as follow.

N^o. 1. Men 7 s.

Women 7 s.

Children 2 s. to 5 s.

2. Men 6 s. to 10 s.

Neither women or children.

3. Men 7 s.

Women 7 s.

Children a few, 2 s. to 5 s.

4. Men 8 s.

Neither women or children.

5. Men 7 s.

Women 7 s.

No children.

6. Men 7 s. 6 d.

Neither women or children.

7. Men 7 s. 6 d.

Neither women or children.

8. Men 7 s. 6 d.

Neither women or children.

9. Men from 6 s. to 9 s.

Women the same.

No children.

Most

Most of these articles have many preparers; among others,

Dyers at 7s. 6d.

Bleachers 6s. 6d.

Finishers 7s. 6d.

The check branch, like the fustian, works both for exportation and home consumption, but vastly more for the former than the latter. During the war the demand was extremely brisk; very dull upon the peace, but lately has arisen greatly, though not equal to the war; and the interruptions caused by the convulsions in *America*, very severely felt by every workman in this branch: None ever offered for work but they at once had it, except upon the regulations of the colonies cutting off their trade with the *Spaniards*, and the stamp act. The last advices received from *America* have had a similar effect, for many hands were paid off in consequence of them.

In the hat branch the principal subdivisions are,

1. Preparers.

4. Liners.

2. Makers.

5. Trimmers.

3. Finishers.

They employ both men, women, and children, whose earnings are somewhat various.

Nº. 1. No men.

Women, 3s. 6d. to 7s.

No children.

2. Men

2. Men, 7 s. 6 d.
No women.
Children, 2 s. 6 d. to 6 s.
3. Men, 12 s.
No women.
Children, 7 s. 6 d.
4. No men.
Women, 4 s. to 7 s. 6 d.
Children, 2 s. 6 d. to 6 s.
5. No men.
Women, 4 s. to 7 s. 6 d.
Children, 2 s. 6 d. to 6 s.

This branch works chiefly for exportation; during the war it was surprizingly brisk; after the peace quite low; lately it has been middling.

In the branch of small wares are numerous little articles, but the earnings in general run as follow :

- Men from 5 s. to 12 s.
Women from 2 s. 6 d. to 7 s.
Children from 1 s. 6 d. to 6 s.

The number of spinners employed in and out of *Manchester* is immense; they reckon thirty thousand souls in that town; and fifty thousand manufacturers employed *out* of it.

- Cotton spinners earn,
Women, 2 s. to 5 s.
Girls from six to twelve years, 1 s. to 1 s. 6 d.

In general, all these branches find, that their best friend is an high price of provisions. I was particular in my enquiries on this head, and found the sentiment universal. The manufacturers themselves, as well as their families, are in such times better cloathed, better fed, happier, and in easier circumstances, than when prices are low ; for at such times they never worked six days in a week ; numbers not five, nor even four ; the idle time spent at ale-houses, or at receptacles of low diversion ; the remainder of their time of little value ; for it is a known fact, that a man who sticks to his loom regularly, will perform his work much better, and do more of it, than one who idles away half his time, and especially in drunkenness.

The master manufacturers of *Manchester* wish that prices might always be high enough to enforce a general industry ; to keep the hands employed six days for a week's work ; as they find that even one idle day, in the chance of its being a drunken one, damages all the other five, or, rather, the work of them. But at the same time they are sensible, that provisions may be too high, and that the poor may suffer in spite of the utmost industry ; the line of separation is too delicate to attempt the drawing : but it is well known by every master manufacturer at *Manchester*, that the workmen

who are industrious, rather more so than the common run of their brethren, have never been in want in the highest of the late high prices. Large families in this place are no incumbrance ; all are set to work.

America takes three-fourths of all the manufactures of *Manchester*.

I am obliged to Mr. *Archibald Bell*, of *St. Anne's Square*, and Mr. *Hamilton*, two of the principal manufacturers in the town, the first in the fustian branch, and the latter in the check, for the heads of the preceding intelligence. Had I been fortunate enough to meet with gentlemen equally knowing and obliging, at many other manufacturing towns, I should have been able to give a much better account of them ; but the success of such undertakings as this Tour, must depend, in a good measure, on the people one meets with *.

* Since the first edition of these papers, I have been informed that a great spirit of improvement is roused in several parts of *Lancashire*. An agriculture society meets regularly at *Manchester*, which offers premiums for sundry matters in rural oeconomics. The following papers will shew with what judgment they proceed.

Manchester, Oct. 3, 1769.

AGRICULTURE SOCIETY, within the hundred of Salford, in the county of Lancaster.

On *Wednesday* last, at a general meeting of the Society, held at *Crompton's* coffee-house, the fol-

To-morrow begins with the Duke of *Bridgwater*; I shall therefore conclude this long epistle, by assuring you, that I shall ever remain &c. &c.

following premiums were adjudged to the under mentioned persons.

CLASS I.

Premium 1st. For the owner of any farm or parcel of land not having less than fifty statute acres in the neatest order as to fences, gates, stiles, &c. a silver medal, to *Richard Townley, esq; of Belfield.*

Premium 3d. For the tenant of any land not less than fifty statute acres, upon the same conditions, the sum of 7*l.* 7*s.* to Mr. *John Hardman and Co. of Manchester.*

Premium 4th. For the tenant of any land, not less than twenty-five statute acres, upon the same conditions, the sum of 3*l.* 3*s.* to Mr. *John Duncuff, of Oldham.*

CLASS II.

Premium 1st. For the owner who shall drain the greatest quantity of wet, springy, or morass ground, not less than two statute acres, a medal, to *William Hulton, esq; of Hulton.*

Premium 2d. For the tenant who shall drain the greatest quantity, not less than two statute acres, on the same conditions as the last, the sum of 7*l.* 7*s.* to Mr. *Samuel Brierley, of Pendleton.*

Premium 6th. For any tenant for clearing the greatest quantity of land from whins, broom, &c. not less than three statute acres, and prepare the same for tillage, the sum of 6*l.* 6*s.* to Mr. *Samuel Kay, of Heywood, within Birtle.*

L E T T E R XIX.

THE original design of the Duke of *Bridgwater*, was to cut a canal from *Worsley*, an estate of his Grace's, abounding with coal mines, to *Manchester*, for the easy conveyance of his coals to so considera-

C L A S S III.

Premium 1st. For the owner for the best crop of wheat, not less than three statute acres, a medal, to *Robert Radclyffe*, esq; of *Foxdenton*.

Premium 2d. For any tenant for the best crop of wheat, on the same conditions, the sum of 7*l.* 7*s.* to Mr. *James Chorlton*, of *Old Hall*, within *Witkington*.

For any tenant for the second best crop of wheat on the same conditions, the sum of 3*l.* 3*s.* to Mr. *John Harman*, and Co. of *Manchester*.

Premium 3d. For the owner for the best crop of barley, not less than three statute acres, a medal, to *William Hulton*, esq; of *Hulton*.

Premium 4th. For any tenant for the best crop of barley on the same conditions, the sum of 5*l.* 5*s.* to Mr. *John Royle*, of *Staney-street*, within *Worsley*.

Premium 5th. For any tenant for the second best crop of barley on the same conditions, the sum of 2*l.* 2*s.* to Mr. *James Kearsley*, of *Hulton*.

Premium

ble a market; and, in 1758-9, an Act of Parliament for that purpose was obtained. The course of the canal prescribed by this act, was afterwards varied by the same authority, and the Duke further enabled greatly to extend his plan; for he now determined, and with uncommon spirit, to make his canal branch not only from *Worsley* to *Manchester*, but also from a part of the canal be-

Premium 6th. For any tenant for the best crop of oats, not less than three statute acres, the sum of 5*l.* 5*s.* to Mr. *Sandford*, of *Burnage*, within *Witbington*.

For any tenant for the second best crop of oats on the same conditions, the sum of 2*l.* 2*s.* to Mr. *Duncuff*, of *Oldbam*.

Premium 7th. For the owner for the best crop of potatoes, not less than one statute acre, to be set in rows or ridges, at the distance of twenty inches, or more, a medal, to *Thomas Butterworth Bayley*, esq; of *Hope*.

Premium 8th. For any tenant for the best crop of potatoes on the same conditions, the sum of 5*l.* 5*s.* to Mr. *Samuel Part*, of *Eccles*.

C L A S S IV.

Premium 2d. For any person for the best cow-calf, calved after the 1st day of *January*, 1769, a medal, to *Thomas Butterworth Bayley*, esq; of *Hope*.

Premium 3d. For any tenant or farmer for the best bull-calf on the same conditions, the sum of 5*l.* 5*s.* to Mr. *John Arnold*, of *Newton-Heath*.

tween both, to *Stockport* and *Liverpool*. The idea was a noble one, and ranks this spirited young nobleman with the most useful genius's of this or any age. But the execution of so great a plan teemed with difficulties that required a perpetual exertion of abilities fertile in resources.

The first point in viewing this navigation, is to send from *Manchester* to *Worsley*, to

Premium 4th. For any tenant or farmer for the best cow-calf on the same conditions, the sum of 5*l.* 5*s.* to Mr. *Robert Hill*, at *Stone-wall*, within *Cbetkam*.

Manchester, Oct. 5, 1769.

AGRICULTURE SOCIETY for the hundred of *Salford*, in the county of *Lancaster*.

PREMIUMS offered by the Society, for the year 1770.

CLASS I.

Premium 1st. For the owner of any farm, or parcel of land (not being less in quantity than fifty statute acres) who shall have the same in the neatest and most exact order, as to fences, water-courses, water banks, roads, gates, stiles; and also the land laid down and drained in the best manner, and cleanest from weeds, a silver medal, value 2*l.* 2*s.*

Prem. 2d. For the owner of any farm or parcel of land (not being less than twenty-five acres) upon the same conditions as Prem. 1st, a silver medal, value 1*l.* 1*s.*

Prem. 3d. For any tenant or occupier of any farm or parcel of land, held by lease for lives or years,

ſpeak for a boat, to carry your party the whole tour: (By the bye, it is a ſtrange affair, that the town of *Mancheſter* does not poſſeſs a boat for the accommodation of its own inhabitants, and ſtrangers who come to ſee it; for want of one, you may very probably wait a day or two :) And in the mean time you may employ yourſelf in viewing the works at *Mancheſter*: This was my

years, or tenant at will, (not being leſs than fifty ſtatute acres,) upon the ſame conditions as Premium 1ſt, the ſum of 7*l.* 7*s.*

Prem. 4th. For any tenant or occupier of any farm, &c. (not being leſs than twenty-five ſtatute acres,) upon the ſame conditions as Prem. 1ſt, the ſum of 3*l.* 3*s.*

C L A S S II.

Premium 1ſt. For any perſon (being the owner thereof,) who ſhall drain in the beſt and moſt effectual manner the greateſt quantity of wet, ſpringy, clay, or moraiſs ground, (the quantity not being leſs than two ſtatute acres, a ſilver medal, value 2*l.* 2*s.*

Prem. 2d. For any tenant or occupier of land draining upon the ſame conditions as for the laſt Premium, the ſum of 7*l.* 7*s.*

Prem. 3d. For any perſon (being the owner,) who ſhall incloſe, break up, and prepare in the beſt and moſt effectual manner, for tillage, paſture, or meadow land, the largeſt quantity of any barren or waſte ground, (the quantity not to be leſs than five ſtatute acres,) a ſilver medal, value 2*l.* 2*s.*

plan. And it will not be amiss if you ask for Mr. *Mac-something*, — *Mac-lean*, I think; the principal man that delivers the coals: He is a sensible, intelligent fellow, and will shew and explain every thing there.

The head of the navigation forms two terminations, marked A and B, in the annexed plan, Plate V. Fig. 2. The first is, a common wharf for the landing of coals

Prem. 4th. For any tenant or occupier of land, who shall break up, &c. as in the last Premium, the sum of 7*l.* 7*s.*

Prem. 5th. For any person (being the owner) who shall clear the largest quantity of land from whins, broom, brakes, (alias fearn,) ling, or brushwood, and afterwards prepare the same in the best and most effectual manner for tillage, the quantity not to be less than three statute acres, a silver medal, value 2*l.* 2*s.*

Prem. 6th. For any tenant or occupier of land, who shall clear the largest quantity, &c. as in the last Premium, the sum of 6*l.* 6*s.*

C L A S S III.

Premium 1st. For any person (being the owner) who shall have the best crop of wheat, and the clearest from weeds, (the quantity not to be less than three statute acres,) a silver medal, value 2*l.* 2*s.*

Prem. 2d. For any tenant or occupier of land, who shall have the best and cleanest crop of wheat, the quantity the same as in the last Premium, the sum of 7*l.* 7*s.*

For any tenant or occupier of land, who shall have the second best and cleanest crop of wheat, the quantity the same as before, the sum of 3*l.* 3*s.*

On

out of large barges, for the supply of carts and waggons. The second is a subterraneous canal, arched over, into which long but narrow boats enter, being of a construction fitted for a peculiar purpose elsewhere. This subterraneous passage extends from C to D.

At E, in the roof of the arch turned over this water, is a well, bricked like common ones, which is sunk from the ground above ;

On account of the present uncommon wetness of the season, the Society offer the two following Premiums.

Prem. 3d. For any person (being the owner,) who shall have the best crop of wheat, and cleanest from weeds, sown after the first day of *January*, 1770, (the quantity not less than three statute acres,) a silver medal, value 2*l.* 2*s.*

Prem. 4th. For any tenant or occupier of land, who shall have the best and cleanest crop of wheat, sown after the first day of *January*, 1770, the quantity the same as in the last Premium, the sum of 5*l.* 5*s.*

Prem. 5th. For any person (being the owner) who shall have the best crop of barley, and the cleanest from weeds, the quantity not less than three statute acres,) a silver medal, value 2*l.* 2*s.*

Prem. 6th. For any tenant or occupier of land, who shall have the best crop of barley, and the cleanest from weeds, (the quantity not less than three statute acres,) the sum of 5*l.* 5*s.*

For any tenant or occupier of land, who shall have the second best crop of barley, and cleanest from weeds, the same quantity as before, the sum of 2*l.* 2*s.*

Prem.

(*N. B.* It is much higher than the level of the water, being somewhat of a hill;) upon which, and near the mouth of this well, is erected a crane of a new construction, which turning upon a pivot, is brought at pleasure over the well, and draws up the coals. G.

The boats contain a system of square boxes, fitted in exactly; these are filled with

Prem. 7th. For any person (being the owner) who shall have the best crop of oats, and the cleanest from weeds, (not less than five statute acres,) a silver medal, value 2*l.* 2*s.*

Prem. 8th. For any tenant or occupier of land who shall have the best and cleanest crop of oats, (the quantity not less than five statute acres,) the sum of 5*l.* 5*s.*

For any tenant, or occupier of land, who shall have the second best and cleanest crop of oats, the same quantity as before, the sum of 2*l.* 2*s.*

Prem. 9th. For any person (being the owner,) who shall have the best crop of potatoes in quantity and quality, to be set in rows or ridges, the distance betwixt the rows, or ridges, not to be less than twenty inches, and to be kept well hoed and clear from weeds, (the quantity not to be less than one statute acre,) a silver medal, value 2*l.* 2*s.*

Prem. 10. For any tenant, or occupier of land, who shall have the best crop of potatoes, upon the same conditions as in the last premium, the sum of 5*l.* 5*s.*

Prem. 11th. For any person, being the owner, who shall have the best crops of turneps in every respect,

coals (each holds eight hundred weight) at the mine, for the convenience of being easily landed through this well; they therefore enter the subterraneous canal, and move on, until they come under the well; there they stop, and the ropes, which are fixed to the crane above, being let down with hooks, at the end are fastened to the boxes, (which are ironed for that purpose) and then drawn up.

respect, (the quantity not to be less than two statute acres,) to be hoed and kept clean from weeds, a silver medal, value 2*l.* 2*s.*

Prem. 12th. For any tenant, or occupier of land, who shall have the best crop of turneps upon the same conditions as in the last premium, the sum of 5*l.* 5*s.*

CLASS IV.

Premium 1st. For any person who shall have the best bull calf (calved after the first day of *January* next,) and from a cow, at that time, his or her property, a silver medal, value 2*l.* 2*s.*

Prem. 2d. For any person who shall have the best cow calf, upon the same conditions as the last premium, a silver medal, value 2*l.* 2*s.*

Prem. 3d. For any tenant, or farmer, who shall have the best bull calf (calved after the first of *January* next,) and from a cow his or her property, the sum of 5*l.* 5*s.*

Prem. 4th. For any tenant, or farmer, who shall have the best cow calf, upon the same conditions, the sum of 5*l.* 5*s.*

By order of the President,

J. WRIGHT, Clerk.

Mr.

The power of this crane is that of a water wheel, contrived in a very simple manner. The best way of explaining it will be by a little sketch, Plate V. Fig. 3. But remark, that I only draw this from idea, the cavern in which the wheels work being under ground, and below the surface of the subterraneous canal; and all the light I had was that of a farthing candle. I offer it

Mr. Bayley explained the culture of the new potatoe to the Society in the following letter.

Hope, near Manchester, Nov. 13, 1769.
 To Richard Townley, *esq;* of Belfiel, President
 of the Agriculture Society, in the hundred of Sal-
 ford, in the county palatine of Lancaster.

Dear SIR,

As a member of a Society, which in a great measure owes its rise and present flourishing state to *your* patronage, I beg leave, in this *public* manner, to inform you, and the Society in general, that I have this year raised an uncommon kind of *Potatoe*, which, from its amazing increase, well deserves the attention of the public. The most authentic accounts I have yet been able to procure, say, that this kind of potatoe originally was brought from *North America*; that it was first cultivated in *England*, last year, by one Mr. Howard, a gentleman of *Bedfordshire*; and that its increase is *eight* times as great as that of the *common potatoe*. If set at *considerable* distances, they grow to an enormous size, and may rather be called a *congeries* of *many*, than *one* potatoe, and are too large either to roast or boil for
 the

only as an explanation, which may give you a better idea of the manner in which the coals are drawn, than a mere description in words.

a. Is the canal arched over.

b. A little branch of it, or rather a trough, into which the water is let at pleasure by drawing up the sliding door *c.*

the table : this is *not* the case if the sets are placed in drills, at two feet distant, with intervals of the same width. Mr. *Howard* cultivated those which he raised on a *stiff rich* soil ; but this, as well as *all other* potatoes, flourishes best in *light* land, and will certainly yield greater crops, if earthed up from time to time, as the stalks grow.

This potatoe grows longer in the ground, and will bear the *frosts vastly better*, than any of our sorts ; and as it will yield a vast increase, even on a *stiff clay*, (as was Mr. *Howard's*,) it seems *peculiarly* adapted to the soil and climate of *this* country. Mr. *Howard* generously sent two hampers of these potatoes to the Society of Arts, &c. in *London*, the last spring ; and I procured two large roots from their Register, and shall now, Sir, proceed to tell you, how I have succeeded in the cultivation of them.

I divided the first into *two*, the second into *thirty* sets, and put them into the ground on the 6th of *May* last ; the soil was a fine loose loam, but rather too damp.

The *two sets* were placed at considerable distances, and each of them occupied a circle, whose diameter might be near four feet.

The

- d. A water wheel, into the cavities of which the water falls out of the trough *b*.
- e. A wooden cylinder, to which the ropes are fastened; turned by the above water wheel, which winds the ropes round it.
- ff. The ropes which are fastened at top to the crane.

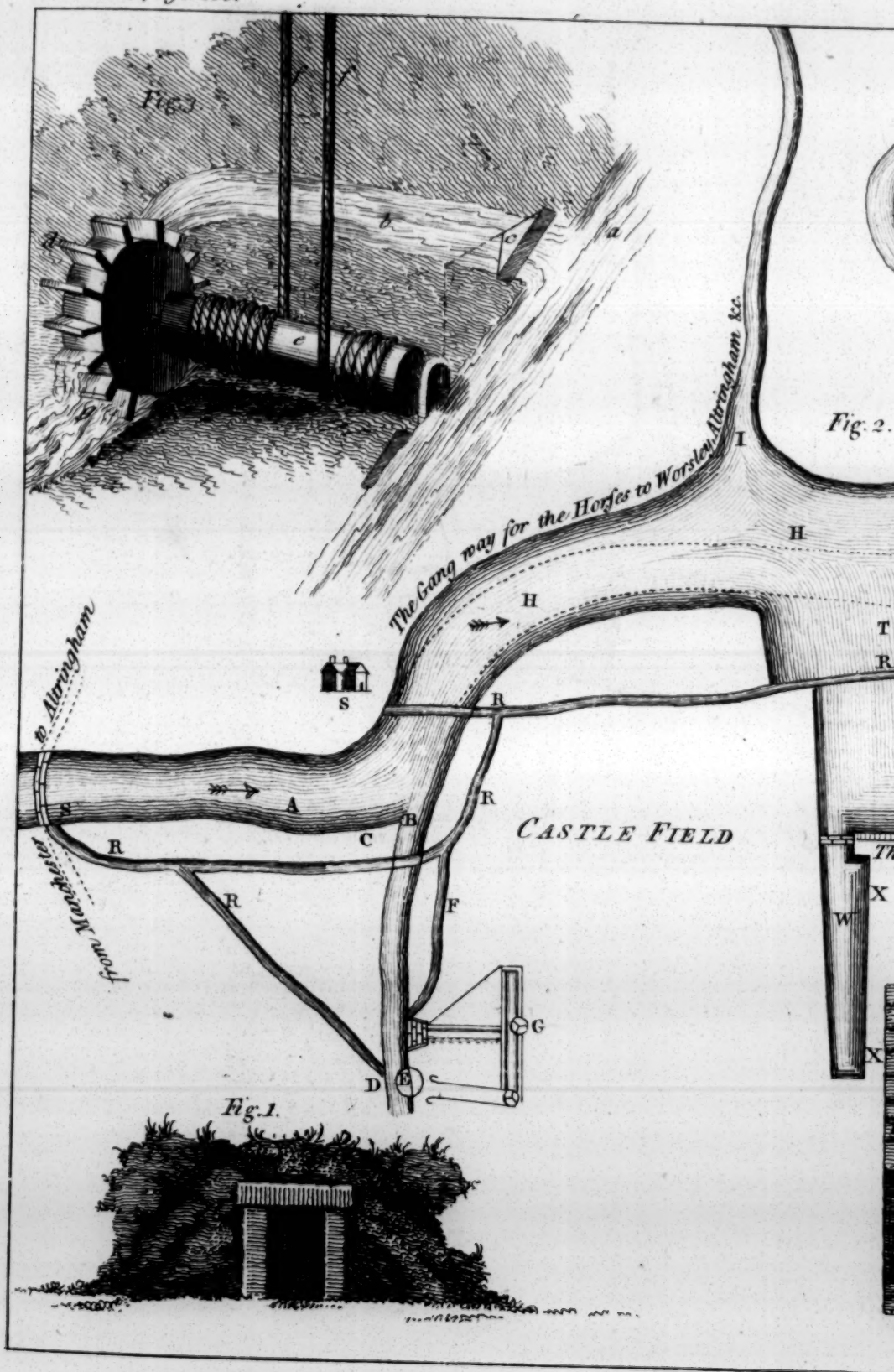
The *thirty sets* were planted on a bed four feet wide, and at two feet one half distant from each other. They were kept clean from weeds, and as the plants grew, the stalks were laid down, and fresh earth trenched over them.

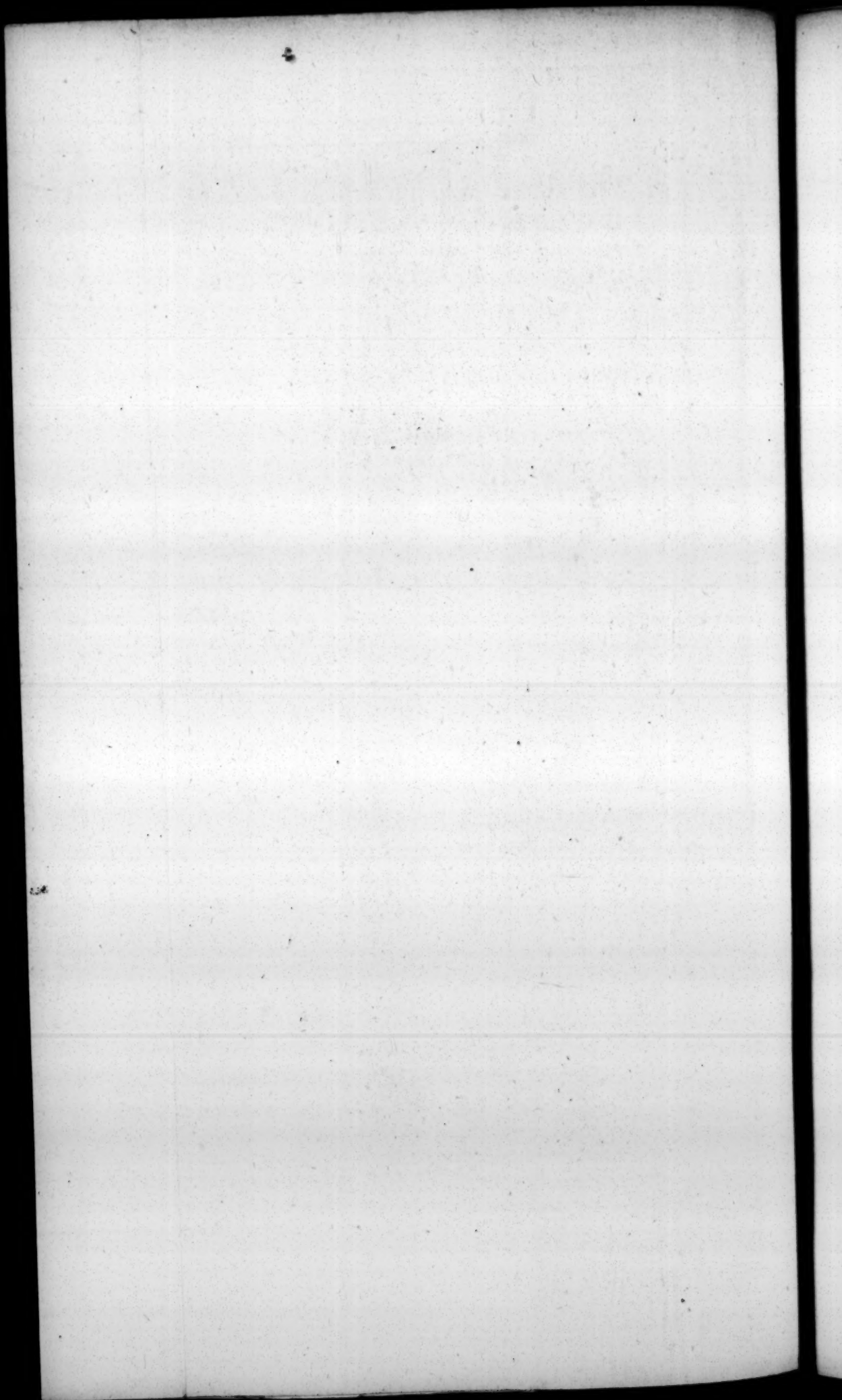
N. B. A very trifling quantity of dung was used in preparing the ground.

On the 11th of this inst. *Nov.* I saw them taken up, and *exactly weighed*, and the produce of the *first* was 222 *lb.* of the *second* 364 *lb.* My gardener afterwards counted them, and found the *first* number 700, and the *second* 1100.

Is not this a most amazing increase? The above is an exact and most faithful account; I can *attest* its veracity, for I was myself an eye-witness, and assisted both in the planting and taking up the potatoes. From this plain narrative of facts, you, Sir, (and others, who, like you, devote their learning and leisure to the improvement of useful arts,) will be induced, by a course of accurate experiments, to discover with greater precision, the peculiar excellencies of this potatoe, (which, I think, ought to be called the *Howard Potatoe*.)

You will probably plant it on wet, stiff, and clayey soils, in light, sandy, and gravelly land,
with





g. The chanel through which the water that turns the wheel, runs off, marked F in the large plan.

Each boat contains twelve boxes; two men and a boy are employed in the unloading, who are from twenty to forty-five minutes about each boat load; this variation is occasioned by causes which will be explain-

with lime, ashes, and different kinds of manures. I think it deserves this attention; and, that you may be enabled to pursue the experiments, I have left a quantity of these *Howard potatoes* with Mr. *John Wright*, in *St. Anne's Square, Manchester*, to be distributed amongst those members of our Society, who shall please to send for them, and have desired Mr. *Wright* to forward some of them to *Belfield*.

I have forgot to hint, that I am of opinion, that these *Howard potatoes* have *not* so good a taste as our own kinds, and it is supposed their great value will be as food for cattle. See the Appendix to the 4th Numb. of *De re Rustica*.

I am, dear Sir, with great respect,

Your obliged, and most obedient servant,

T. B. BAYLEY.

P. S. I am happy to tell you, that I have found the new method of cultivating potatoes, by allowing them more ground, hoeing, &c. has exceeded my greatest expectations. I have had several roots of our common sorts that have produced upwards of 50lb. weight each, and one *very small seedling* potatoe produced upwards of 40lb. weight, and the potatoes from it were all large, some of them weighing near a pound a-piece.

It

ed hereafter. When drawn up, the boxes are emptied on a heap for sale; and then let down again into the boats. This subterraneous canal is extended further than the crane, with design to erect another upon the same principles. At the mouth of it is a door fastened on hinges at the bottom of the water, which falls or rises at pleasure, and when up stops the water from entering; a

It has been calculated, that a statute acre, yielding proportionably to the first experiment, will produce 5036 bushels, 60lb. each, which, at the medium price of 5s. per load, would be worth 308l. 10s. an acre.

The husbandry of *Lancashire* cannot fail of improving greatly under the auspices of such a society of patriots. That the above articles are not the only ones attended to, will appear from the following paper on draining, for which I am obliged to Mr. *Bayley*, of *Hope*, the inventor.

A method of making hollow Drains, without wood or stone. By Mr. Bayley, of Hope.

Let it be premised, that the main drains to carry off the water from the rest, must be made of brick, or stone, of sufficient width, and three inches deeper than the others. There should be one of these to two statute acres, and they should always follow the slope of the ground in a direct line.

The lesser drains, *without brick, &c.* should, in general, not be above six yards asunder, and cross the slope, or inclination of the land, and fall *obliquely* into the main drains: for if the wa-
ter

trap-door at the bottom of the subterraneous canal may then be opened, and all the water let out for repairing any of the works; it runs into the channel, g.

I should, in the next place, remark, that the water marked H, H, H, H, is the river *Medlock*, and I, the Duke's canal; but as it is the first and grand principle of Mr. *Brindley's* plan, with all artificial naviga-

ter from these shall fall in at right angles, the earth will wreck, and be apt to fill up, and spoil the drain. Stones, or brick, should likewise be put over the smaller, for a foot or two before they join the main drain; and the place where they join should be well secured. Plate VI. Fig. 1. A the main drain. B B the lesser ones.

The lesser Drains are thus made.

First, with a common spade take out the turf, or fods, eighteen inches wide, and of a sufficient thickness, and lay them on one side, with great care: then with the same spade sink two or three spits deeper, at the same width, and throw the earth on the other side; and take care that the sides and bottom of this trench be worked off smooth and clean; then take a board *near* eighteen inches wide, and fifteen feet long, or twenty, as it suits, with a slit in the middle of four inches wide: or, rather two boards of the same dimensions, put together as under. Plate VI. Fig. 2. B B are two cross pieces on the *upper* side, to fasten the boards together.

This board lays flat on the bottom of the trench, and the man stands upon it, and with the *narrow long tool*, Plate VI. Fig. 3. he works the drain with great expedition, exactness, and ease, and, if he sets out right, is always sure

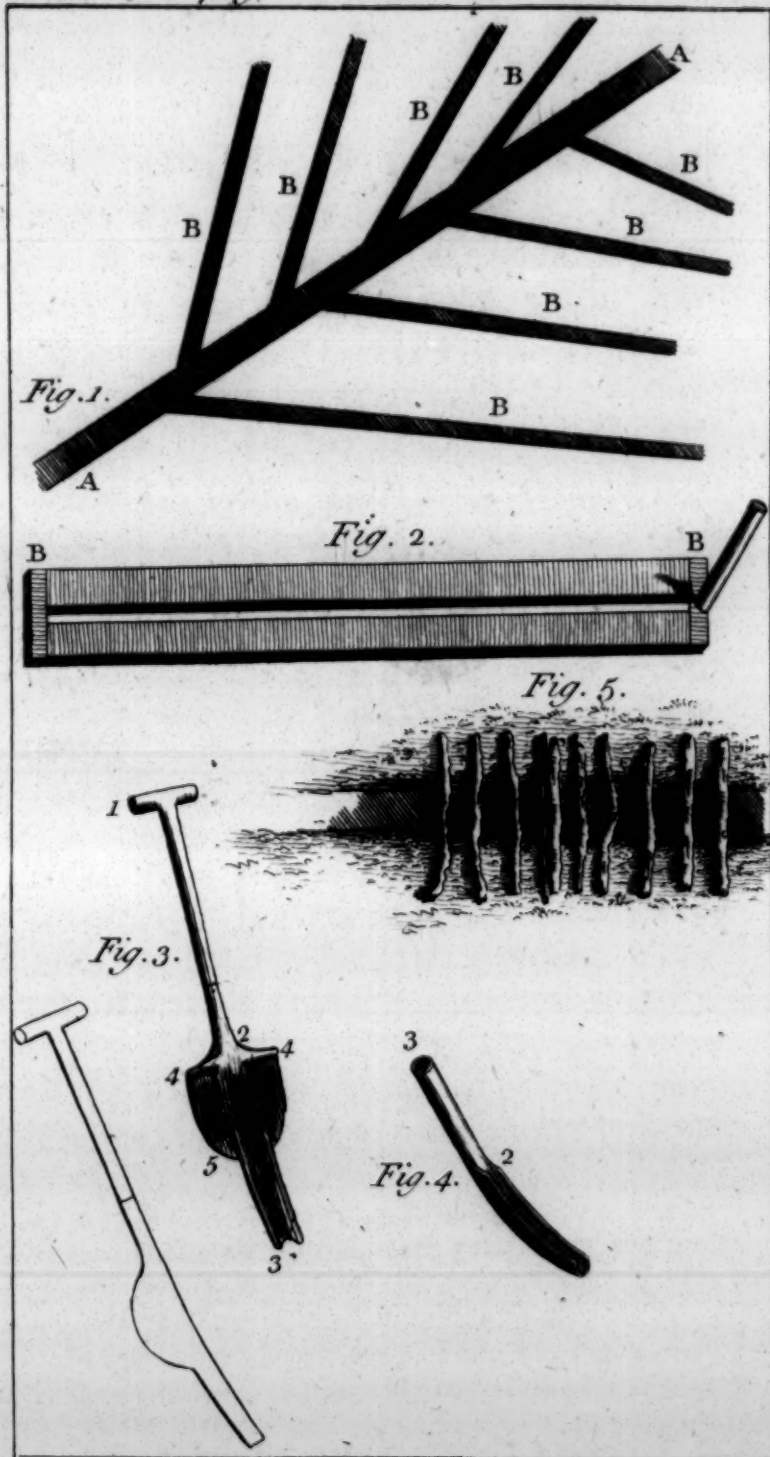
tions, never to let the water of any brook or river intermix with that of the canal, unless to supply the requisite quantity; some peculiar contrivance was necessary to prevent the canal, in this junction with the river, from being affected by its rising or falling with floods, &c. For this purpose, the *wear* was executed, which is minuted in the annexed plan, marked K: It is a hexagon, of three hundred and sixty-six yards circumference.

of his level; for the tool must be worked to the head through the whole. When thirty or forty yards are thus finished with Fig. 3. the scoop, Plate VI. Fig. 4. must be used to clean the bottom of the narrow drain. Then (if the turf is *sound*) lay the pieces with the grass side downwards, over the narrow drain; see that they fill the trench *in width*, and join closely to each other; then throw in the earth that was before taken out, and the work is done. But if the turf is not firm, before you put it in, lay small sticks across, in this manner, Plate VI. Fig. 5.

I have, even where no turf could be had, covered drains in fields to be plowed, with sticks, in the above way, and over them put in rushes, brushes, wood, and then the earth over all, and this with great success. But the method before mentioned, where only the turf is used*, is firm and secure; and, I dare vouch, will last thirty years, if carefully executed at first. I have drained several acres after this method, and my labourers *finish* these drains for an halfpenny a yard†. The land, before too wet to bear a

* Small sticks across certainly are an advantage even where the sods are firm, but are not necessary.

† At a halfpenny a yard, three men can earn 7s. a day.
horse,





The old course of the *Medlock* is marked out by the lines dotted thus:

.....

Instead of permitting it to continue in that course, it was enlarged into the size it now appears in the plan, the circular end of which is all raised on masonry. The outward line of the wear, K, K, K, regulates the-height of water in the canal; the higher that edge is, the higher is the water. The river *Medlock*, thus enlarged, falls fifteen inches over that edge of masonry, into a fresh surface of water, marked L, L, L; this is likewise all raised of stone-work; near the center of it is a well M of eleven yards diameter, down which the whole river falls several yards depth. It is received at

horse, is now firm and dry, and has been *plowed* with ease. My meadows thus drained wear a new face, and I would particularly recommend this mode of draining for grass grounds.

Hope, April 30, 1770.

Description of the SPADE. Plate VI. Fig. 3.

- 1, 2. The handle, two feet two inches long.
- 2, 3. The iron part of the spade, eighteen inches long, three and a half wide at top, and two at bottom, hollowed like a scoop.
4. Irons fastned for the foot to press the spade.
5. A sharp iron projecting (on each side) from the spade, which cuts the sides of the next spit, while one is digging by the pressure of raising up the earth.

Description of the SCOOP. Plate VI. Fig. 4.

- 1, to 2. One foot the scoop, exactly the width of the bottom of the spade.
- 2, to 3. Nine inches the handle iron, into which, at 3, a wooden one is put.

P 2

bottom

bottom in a subterraneous passage, marked N, and flows out at O, where it appears a common river, falling into the *Irwell*, at P.

The subterraneous passage N, was made of that length, for a very material reason; at Q, is a communication between the end of the passage and the surface of the water above, in the nature of a smaller well, but the mouth plugged up; this is made with design to clear the passage of all mud or rubbish that might accumulate in time at the bottom of the well M, by drawing the plug, and letting down a heavy fall of water, to drive out such rubbish at the mouth O.

The reason why the wear was made of this form, was to command a greater line of extent, within a smaller general space than if it was a plain circle, square, or other simple form. The circumference is three hundred and sixty-six yards, which was necessary for the quantity of water to be carried off; now a circle of that circumference could not be contained within the outward bounds of the enlarged river, and at the same time leave space enough for a body of water around it.

The lines in the plan, marked R, R, denote a subterraneous passage, to drain off all superfluous water at some houses and warehouses at S, S, and also from the above-mentioned one at F. At T is a well and plug, as before described at Q, for the same purpose of cleansing the passage from mud

mud and rubbish. The water thus collected flows into the river *Medlock* at U.

The general design of these works is, undoubtedly, great; the whole plan shews a capacity and extent of mind which foresees difficulties, and invents a remedy before the evil exists. The connection and dependence of the parts on each other are happily imagined, and all exerted in concert, to command, by every means, the wished for success: The genius of the engineer deserved it; but the idea is more beautiful in speculation than useful in practice; at least it appears so to me: But I should apologize for criticising works of so noble a tendency, and so excellently invented; excuse my being so free as to express the idea I have of the defects of these works; assuring you that I venerate, no less than the warmest of his admirers, the masterly genius that planned them.

The grand design of the wear was to preserve the canal free from the influence of floods, &c. It was expected, that in the most boisterous times, in common rivers, this would always be smooth, and free from every inequality. But the event has turned out otherwise. The whole surface has more than once been totally overflowed, the hexagon, well, and all, one general flood, and the outward mound rounded of earth, to confine the water, every where overflowed by it, consequently the canal received a much larger portion than ever Mr. *Brindley* de-

signed it should, and the inconveniencies of an unrestrained tide either happened, or might have done. But the wear was confessedly found unequal to its purpose, which occasioned the making the bason, marked W, into which the water runs in floods, and overflows a regular bank made for that purpose, X, X. But this resource has been since found insufficient; and not only a second one of the same kind, but also a general lowering of the mound of earth around the waters of the *Medlock*, inclosing the wear, are now in speculation. These circumstances prove sufficiently, that this elaborate and most costly work is nearly useless.

A very small addition of expence in the erection would have prevented all these inconveniencies. Had the central well been twice as large, or of a more fit proportion to the contingent body of water, and the corresponding caverns the same, all the ensuing difficulties would have been prevented.

But when the wear was found unequal to the end proposed, the shifts made use of to remedy it, such as the bason W, and the designed lowering of the banks, &c. all appear, inadequate to the purpose, and by no means consistent with the former plan; they are little better than letting the water take its natural course; which one would apprehend the worst of all courses, from the vast expence at which an artificial one was made. I should suppose,
a new

a new cavern and well would have been more consistent with the first design, and have answered the wished for end in a more sure and regular manner: And if very great floods (such as never yet happened) are to be guarded against, the new cavern, or subterrane, might have been large enough, occasionally, to admit the water discharged by more than one well; on which plan several might be made to be kept plugged, like the forcing ones at Q and T, and to be opened only in floods. Upon this principle, such additions might be made at Y and Z; the dotted lines there, mark a supposed new channel into the *Medlock*, and a subterrane to another well.

As the depth of water upon L is only fifteen inches, it certainly would be no difficult matter to effect this addition; the water might easily be fenced out by masonry, around a space to work in, and the passage might be carried on, and arched under ground.

Another point, in which these works fell short of expectation, is the effect of the subterraneous drains; it was imagined, that the superfluous water through those drains, would, at all times, freely flow into the *Medlock* at U; but instead of that, the water of the *Medlock* as often flows into the drain, which has very bad consequences, for it totally counteracts the principles of a drain, and likewise flows back so strongly

upon the water-wheel which draws up the coals through the well E, that the power of the wheel is greatly impeded, insomuch that the work of drawing up the coals, which can, at very low water, be done at the rate of a boat load in twenty or twenty-five minutes, takes forty-five when the water is high ; or, in other words, encreases the labour fifty *per cent*. This evil appears to be caused by the subterraneous passages being sunk too deep, by which means the mouth U is too much commanded by the waters of the *Medlock*.

Having taken this view of the works in *Castle-field*, we next took possession of the pleasure boat we had before spoken for, and steered for *Worsley*. The first objects we met with, were two weirs more at *Cornbroke*, formed on the same principles as that in the *Castle-field*, swallowing up rivulets in central wells, which convey the water in subterraneous passages under the canal, and permit it to rise again on the other side, and flow on in its usual course.

Passing on, the canal runs chiefly along the sides of natural banks ; which course was very judiciously chosen for the convenience of possessing not only one bank perfectly firm and secure, but plenty of earth ready for making the other. Just before we came to *Throstle-nest Bridge*, I observed a projecting piece of masonry in the canal, which, on enquiry, I found to be the case of a canal door,

door, for I know not what other name to give it. It is upon the same principle as that at the mouth of the subterranean passage, in which the boats unlade in *Castlefield*. The contrivance and design of these doors are admirable; but as many of them will occur in this tour of the navigation, it will not be improper to explain the construction of them here.

In the sketch, Plate V. Fig. 4. A represents one side of the chanel of the canal, being walled; B, is the floor of it; C, C, are two doors, fixed in the position they appear in, and turning on hinges at bottom, *d, d, d, d*. The doors have a freedom of rising, but cannot fall lower; now it is obvious from this, that in case the bank A, breaks, and the water rushes out of the breach, the decrease of pressure on the doors C, C, will raise them up at once to *e, e*, (where they will be fixed against projecting irons made for that purpose,) as the water at F, F, will then naturally force them up. The consequence of which is, the losing no more than the water contained between the doors; and if the bank should break at F, yet the quantity of water lost would be but trifling. I have thrown the doors near one another, for your fully understanding the principle on which they are designed; but in the canal they are at a distance from each other in divers places. The stopping the loss of water is of
great

great consequence, not only to lessen the mischief of the mere loss, in preventing the navigation going forward, but also in lessening greatly the damage the country would suffer from being overflowed ; a point of much importance.

Next we come to *Leicester Bridge*, (under it another canal door,) and passing through it, I observed, on the left hand, a small water-fall, which is the mouth of a main drain made by the farmer, with smaller ones that lead into it, all covered : The excellent effect of which is here strikingly visible ; for the land on that side was perfectly dry, but on the other side the canal very wet, though not much rain had fallen.

At *Weather-Meetings* we passed another canal door.

Passing the mouth of the canal that leads to *Altringham*, &c. and under *Taylor's Bridge*, you catch a view of *Mars Bridge*, in a pretty situation, the surrounding country fine ; you look over it, scattered with seats, houses, &c. in a pleasing manner. This part of the canal runs through *Trafford Moss*, which is a peat earth black moor : It is great pity that the noble advantage of a water-carriage through the heart of this moor, to so fine a market as *Manchester*, does not induce the owners to cultivate this waste track, which might, beyond all doubt, be applied to numerous uses, far more profitable





fitable than yielding peat in a country so abounding with coals.

The next object that presents itself, is the work at *Barton Bridge*, which is one of the principal undertakings in the whole navigation, and a wondrous one it certainly is. The canal is here, in its usual breadth, carried (*Roman* aqueduct like) on arches, over the large and navigable river *Irwell*.

The aqueduct is two hundred yards long, and thirty-six feet wide; it crosses the *Irwell* on three large arches, the centre of which spans sixty-three feet; and is carried, with amazing labour, through a valley, filled up to receive it. The view, Plate VII. which I took, standing on *Barton Bridge*, will better explain this surprizing work.

A. Is the river *Irwell*.

B. A lock-gate, thro' which the barges are let that navigate the river, on account of the obstruction of the cascade, C.

D. D. A gang-way from one side to the other.

E. The canal.

F. The pleasure - boat, drawn by one horse.

The effect of coming at once on to *Barton Bridge*, and looking down upon a large river, with barges of great burthen towing along it; and up to another river, hung in the air, with barges sailing upon it, form altogether

gether a scenery somewhat like enchantment, and exhibit at once a view that must give you an idea of prodigious labour; for the canal is here not only carried over the *Irwell*, but likewise across a large valley, being banked up on each side in a surprizing manner, to form a mound for the water, and the channel also filled up to the usual depth, that the banks, at a place where they are entirely artificial, and consequently weaker than where natural, might not be endangered by the great pressure of so large a body of water as the depth here filled up would have contained: And I should remark, that it is a maxim throughout this whole navigation, to keep the canal every where of an equal depth. I believe it scarce ever varies above six inches; from four feet, to four feet six inches.

The method Mr. *Brindley* takes to fill up a channel, where too deep, is a most admirable one: He builds two very long boats, fixes them within two feet of each other, and then erects upon them a triangular trough, large enough to contain seventeen tons of earth: The bottom of this trough is a line of trap-doors, which, upon drawing a pin, fly open at once, and discharge the whole burthen in an instant. These boats are filled any where from the banks where the earth is in superfluous quantities, by wheelbarrowing in on a plank, laid from
the

the shore, on to the trough : The boat is then drawn over the spot which is to be filled up, and the earth there dropped : It is astonishing what a vast saving is made by this invention : In common management to conduct a canal *level* across a valley, and without locks, would consume the revenue of a whole county ; but such inventions as these ease the expence at least 5000 *l. per cent.* The following sketch, Plate X. Fig. 1. will give a clearer idea of these boat-waggon.

- A. The boat that appears on a side view.
- B. The trough, supported by the pieces C, C, C.
- D. The ends of the boats.
- E. That of the trough.

I should tell you, that any part of this aqueduct can be repaired without damaging the rest of the canal, or losing more water than is contained within a small space on each side the part decayed ; for several doors, of the same nature as those already described, are fixed in the channel ; and also trap-doors, or tubes, (if I may so call them,) at the bottom, &c. of the aqueduct, through which, by drawing a few plugs, the water would presently be discharged into the *Irwell*, and the part to be repaired, laid dry at once ; a contrivance, which is undoubtedly of vast consequence.

But

But there are others works at *Barton* which claim our attention, besides the crossing the river. Two roads here came athwart the navigation, and happening in this valley, where the canal is so much higher than the level of the country, to have built bridges would have cost immense sums, as the rise would have required them half as long as that at *Westminster*. The method, therefore, taken by Mr. *Brindley*, was to sink the road gradually on both sides, and turning a large arch, to carry the canal over the roads as well as the river: and this is practised with both. So that in going under it you sink gradually on one side and rise in the same manner on the other. The view, Pl. VIII. will explain it clearly.

A. Is the canal.

B. The wall that supports the arch.

C. The road.

Leaving this scene of wonders, we passed on, and coming to *Moreton Bridge*, we presently saw a fresh instance of attention, to keep the water of the canal unmixed by that even of the smallest stream, for here an arch is turned under the canal, for a little brook to run through.

Towards the brick kiln on the right, and past it, I observed some lands lying very low, beneath the level of the canal; in wet seasons they must be much damaged by the water of the navigation.

From





From hence you have a fine prospect of the Duke's house at *Worsley*, and the lands adjoining.

A little further another brook is carried under the canal, by means of an arch turned for that purpose.

Next we came to one of the spots where the lime was found, which proved so noble an acquisition to the Duke. In carrying on the navigation, a vast quantity of masonry was necessary, in building aqueducts, bridges, warehouses, wharfs, &c. &c. and the want of lime was felt severely; the search that was made for materials to attempt to burn into lime, was a long time fruitless; at last Mr. *Brindley* met with a substance of a chalky kind, which, like the rest, he tried; but found (though it was of a lime-stone nature) that, for want of adhesion in the parts, it would not make lime. This most inventive genius happily fell upon an expedient to remedy this misfortune. He thought of tempering the earth in the nature of brick earth, casting it in moulds like bricks, and then burning it; and the success was answerable to his wishes: In that state it burnt readily into excellent lime; and this acquisition was one of the most important that could have been made. I have heard it asserted more than once, that this stroke was better than twenty thousand pounds in the Duke's pocket; but like most common
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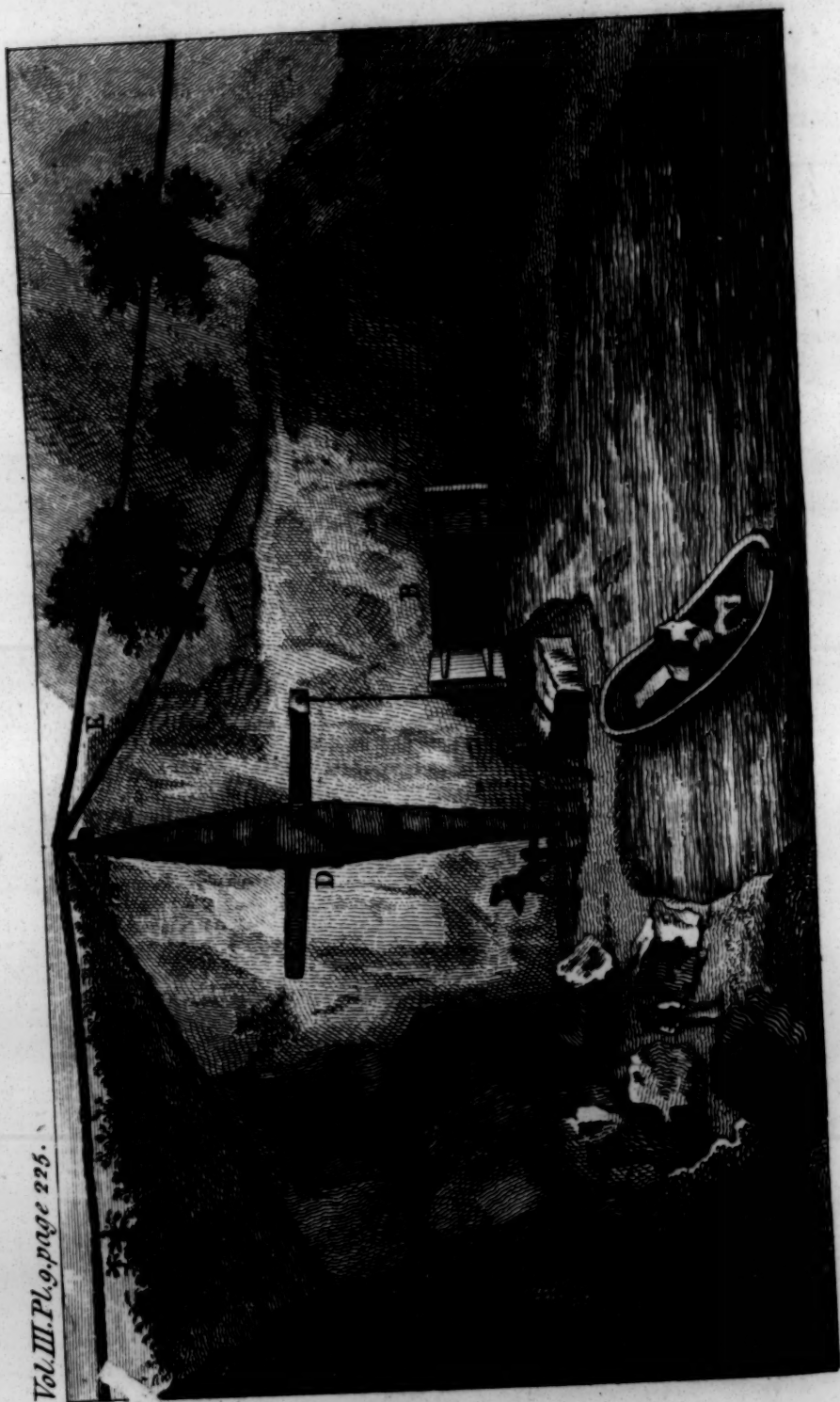
assertions of the same kind, it is probably an exaggeration. However, whether the discovery was worth five, ten, or twenty thousand, it certainly was of noble use, and forwarded all the works in an extraordinary manner. The bed of this lime-marle (which I think is the properest name for it) lies on the sides of the canal, about a foot below the surface.

Advancing towards *Worsley*, I was much pleased to see many vast heaps of the mud that came out of the canal, mixed up with dung, and ready to lay on to the grounds. The Duke keeps these fields in his own hands, and manages them like an excellent husbandman.

At *Worsley* we passed three more canal-doors, and a large stream, which runs under the navigation.

Arriving at the head of the works, we were much struck with the excellent and spirited appearance of active business; for the little village of *Worsley* looks like a river environ of *London*. Here is a very large timber-yard, well stowed with all sorts of wood and timbers for framing buildings, and building boats, barges, and all kinds of floating machines. The boat-builder's yard joins, and several boats, barges, *etc.* are always on the stocks. Next to these is the stone mason's yard, where lie vast piles of stones, ready squared, for loading barges with, to convey





convey to any part of the navigation where they may be wanted, either for building, or repairing of bridges, aqueducts, wharfs, warehouses, &c. the quarry is just by the mouth of the mine, and much is brought out of the mine itself, in working for the coals. Thus every part of the whole design acts in concert, and yields mutual assistance, which is the grand art of economical management.

The great curiosity at *Worsley* is the tunnel, which is a subterraneous canal hewn out of the rock to a great length (near a mile,) and extends into the heart of the coal mines. The view, Plate IX. exhibits the mouth of it, and likewise the quarry works around it.

A. The navigation.

B. The mouth of the tunnel, with large doors to open and shut.

C. The quarry.

D. A crane of a very curious construction, for heaving the stones out of the quarry into the barges.

E. Ropes that keep the crane in its perpendicular position.

The water in the tunnel is upon the level of that in the canal, being the same, so that the boats loaded with coals come out of the very mine itself.

The first entrance, for one thousand yards, is six feet and a half wide, and seven

feet and an half high, including the water, which is three feet four inches deep; it is already continued seven hundred and fifty yards further, ten feet wide, and it is said (how true I know not) that it will be carried on at least a mile and a half further. I took some time to explore the horrid caverns of these mines, and found, on an attentive examination, that the method of conducting the business of them, was nearly as follows:

The seams (or, in these mines, rather veins) of coal branch divers ways, some are above the tunnel, and some below it; as fast as the coal is got, the space is cleared and arched for a road, to move the coal on: This is done in little four-wheeled waggons, which contain ten *cwt.* of coals, and are pushed along by a man setting his head and hands against them, (the road being laid on purpose for it.) The roads all lead to the tunnel. When the man with the waggon comes over a well (of which there are several) that is sunk from the road through the arch of the tunnel, and under which the boats are fixed, he stops on a frame work of wood, which turns on pivots, and is so contrived, that upon drawing up a part of one end of the waggon, some of the coals drop out, and then the waggon is tilted up, and all the rest follow them, falling into the boat beneath either promiscuously, or directed

rected through a tube to fill a box at a time, at pleasure, which work is performed almost instantaneously, and the waggon sent off again for a fresh cargo.

But as the arches (roads) through the mine in many places cross each other, it would there have been impracticable for a man to push so great a weight around a turning; to remove which objection, the square of the floor in the cross of the roads is all of wood; and turns upon a central pivot of iron, so that the man stopping when the waggon comes exactly on to the square, and turning it till it faces the road he is to go, he then pushes on without the least interruption.

The coals that arise in the branches of the mine *below* the tunnel are drawn up through wells into those *above* it, and then conveyed, like the rest, in waggons to the boats.

When they are loaded they are linked together in a gang; and for the convenience of drawing them out, there is a rail on each side the tunnel, for the person who stands in the first boat to hold with his hands and draw himself along; which gives him so great a power, that a boy of seventeen has drawn out a gang of twenty-one boats loaded, which, at seven tons each, is an hundred and forty-seven tons. But this is only one instance, and out of the common

course of business; they commonly bring out a gang at a time, which is four or six, and as soon as they are out of the tunnel, they are drawn by mules to *Manchester, &c.*

The tunnel, where it passes through earth or coal, is surrounded with brick-work, but through the rock it is only hewn out.

At the distance of about a thousand yards from the mouth, it divides into two, which branch different ways, for the convenience of loading coals in the above compendious manner in every part of the mine; and more branches are in contemplation: It has been asserted, that those who go up both passages travel therein three miles; but this is an exaggeration.

Every here and there along the tunnel are wells, bricked from it to the top of the hill, for the admission of air, the exhalation of damps, and the letting down men for reparations in case of accidents.

I have read of tin tubes for the conveyance of air into this mine, but there is no such thing; the shafts, passages, and tunnel supply it sufficiently.

As there generally is much superfluous water in coal mines, it was a very beneficial scheme to cut this tunnel for draining that water away, and, at the same time, for carrying the navigation into the heart of the colliery: Such bold and decisive strokes are the finest proofs of inventive genius, of
that

that penetration which sees into futurity, and prevents obstructions unthought of by the vulgar mind, merely by foreseeing them : A man with such ideas moves in a sphere that is to the rest of the world imaginary, or at best a *terra incognita*.

The best way of viewing the extent of the mines, is by going down the shaft and coming out by the tunnel : and sometimes you must either take this method, (which was my own case,) or not see it at all ; for boats are not always going in, nor to be had for that purpose ; but you will seldom fail of an empty boat within, by which your guide, (the ostler, I think, of the inn,) will convey you out.

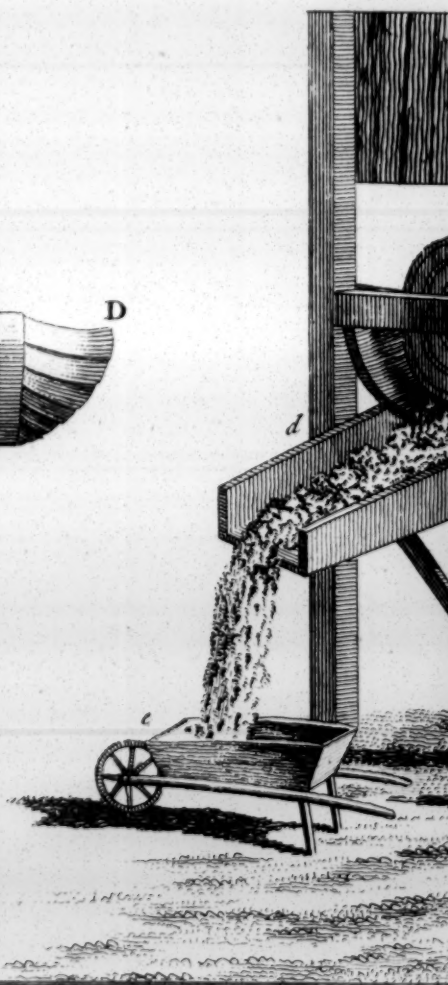
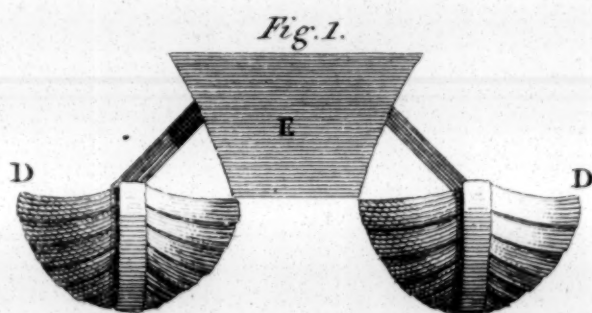
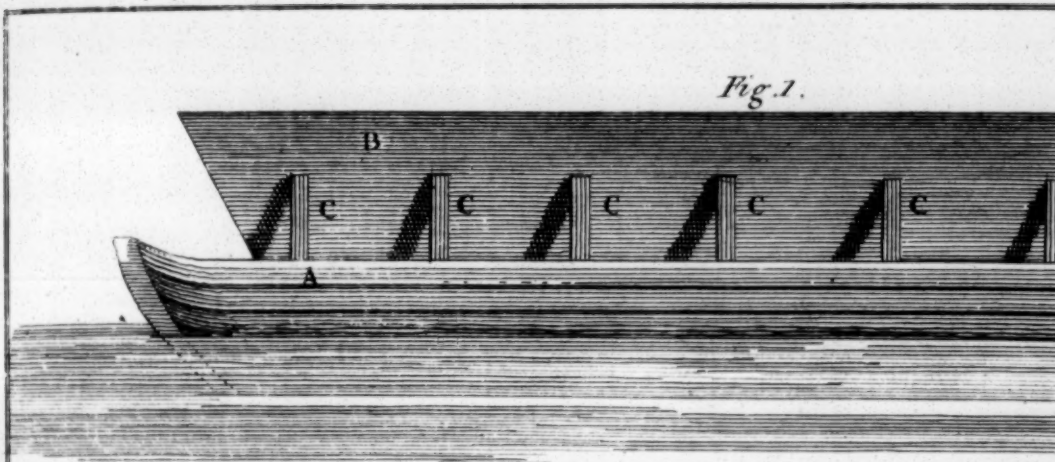
Near the head of the canal is another curiosity, very well worth viewing. It is a mill of a new construction, with many powers. The first motion is the turning a wheel, twenty-four feet diameter, by a small overshot stream. This wheel works three pair of grinding-stones for corn, a boulting mill, which discharges the meal divided into three sorts of flour, besides the separation of the pollard and bran ; and these works are effected with hogs bristles, fixed within the wire sieves. It likewise turns a machine for making mortar, which is done by being laid upon a horizontal stone, worked by a cogged wheel beneath it ; and the horizontal stone turns two others that are

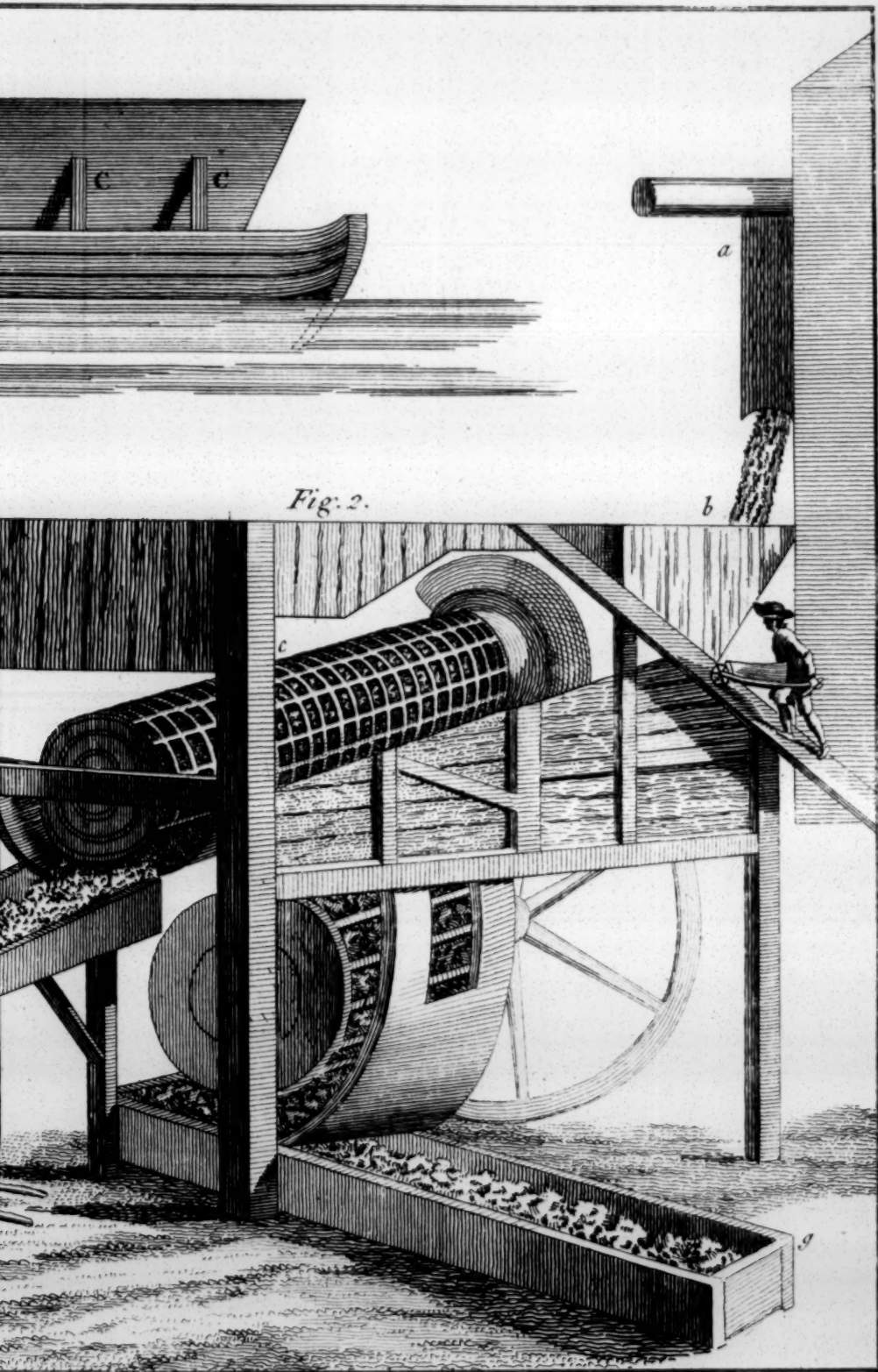
fixed obliquely, and work by their friction the mortar under them, which is taken off as made, by a man who is ready for the purpose.

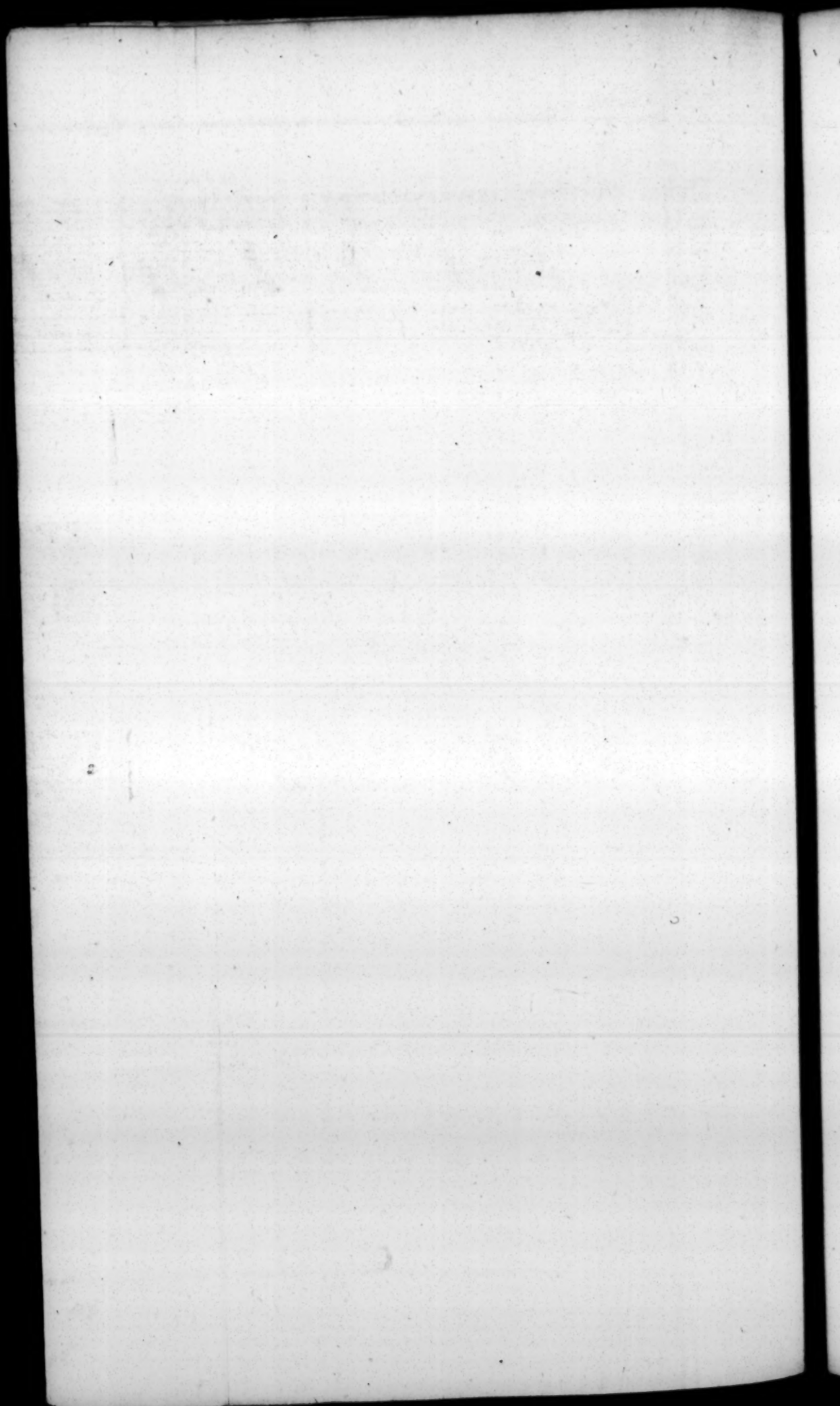
This little stream further turns another machine, of excellent use: It is for sifting the sand used in the buildings, and washing out the little stones that are in it; which it performs very effectually and expeditiously. The sketch, Plate X. Fig. 2. will explain the mechanism.

- a.* Is the tube from which the water issues.
- b.* The hopper, in which the sand is thrown out of wheel-barrows.
- c.* Is a wier cylindrical sieve, into which the sand falls from the hopper, and which, being turned by the large wheel, sifts the sand which drops through the wiers into the wheel *f*, and out of that, after a fresh operation, into the trough *g*, from whence it is taken in shovels.
- d.* Is a trough for conducting the stones driven by the water out of the end of the cylinder, into a wheel-barrow *e*, placed to receive them.
- b.* Is a board, leaned asslant upon the frame work of the machine, for the men to drive up the wheel-barrows on.

The navigation is carried a mile and half beyond *Worsley*, into the middle of a large bog, called here a moss, belonging to the Duke,







Duke, and merely for the use of draining it, and conveying manures to improve it: It is greatly to that nobleman's honour to find him attending, and at a considerable expence, to matters of husbandry, in the midst of undertakings that would alone convey his name with peculiar brilliancy to the latest posterity.

This bog is of large extent, extremely wet, and so rotten, that, before it is improved, it will not bear even a man. The Duke begins by cutting small drains, very near each other, which soon render the surface pretty firm. Then his barges bring the chip-pings of stone, and other rubbish, which arise in digging the coals, and which are brought out of the mine exactly in the same manner, only instead of going to market, to be sold, they are converted into money, in another way, by being brought hither. This rubbish is wheel-barrowed out of the barges on boards, on to the land, which is greatly improved by it; the surface soon becomes sound, the aquatic spontaneous growth disappears by degrees, better herbage comes, and thus it is converted into profitable pasture, without any paring, burning, or ploughing. Some of the larger shivers of the stone will not crumble with the frosts; such are picked up, laid in heaps, and carried back to the stone-yard, where they are squared for buildings, or converted to other uses.

As fast as the bog becomes improved, the canal is extended, for the sake of going on with the work; and almost at the end of it, his Grace is building a small house, for an overseer, situated upon land which once would not have borne even the men employed now in building on it.

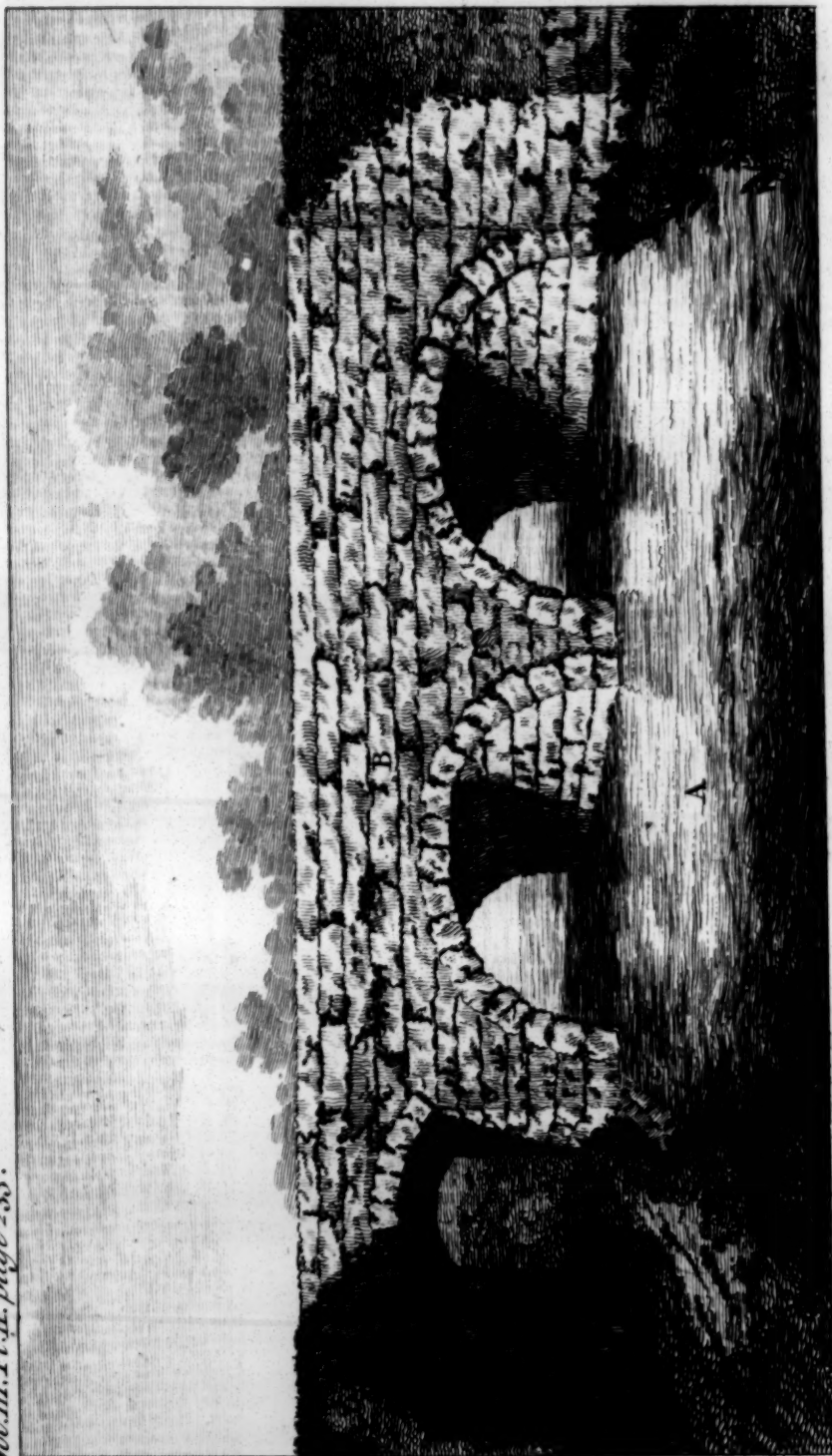
This improvement is of a new kind, and peculiarly useful in the neighbourhood of quarries, stone-masons yards, mines in rocks, &c. &c. In this instance it is of noble advantage, for the rubbish would be troublesome at *Worsley*, and expensive to carry out of the way; so that this improvement must be considered as another *part* of this grand *whole*, which is so admirably connected, and, by itself, so astonishingly supported.

At *Worsley* land lets from 20s. to 3l. per acre. Farms rise from 20l. to 100l. a year.

The next business is to view the other branch of the canal, which extends to *Altringham*, &c. and for this purpose you return to *Manchester* to lie, and keep the pleasure-boat, to be ready at *Castle-field* the next morning.

After arriving in the old course at the branching off, you first come to *Longford-bridge*, under which is a canal-door. And just by a small circular wear, for the conveyance of a stream under the canal, the brook falls into the well, in the nave of the circle,





circle, down to an arched passage, which conveys it under, and lets it rise again in its old course on the other side.

At *Waterford* the canal extends across a long valley, the level being preserved without locks: The work is here very noble: The banks of earth of a vast height and thickness, beautifully sloped, and the whole appearance strikingly great. It here crosses at the same time a large brook much subject to floods, and a road: Two arches carry it over the stream, and a third over the road. The view, Plate XI. will better explain it.

A. The stream.

B. The wall of the aqueduct.

C. The road.

D. The sloped green bank of the canal.

E. A meadow.

The three arches extend eighty feet. Here are trap-doors, &c. as at *Barton-Bridge*, for securing the water of the canal in case of a breach, or for reparations.

Further in the same valley the navigation is carried across the river *Mersey*, on one arch of seventy feet span.

I should remark, that the canal across this whole valley is of a vast breadth, and has rather the appearance of a great navigable river, than an artificial canal cut at the expense of a single person.

Next

Next it is carried across *Sale Moor*; under the first bridge you catch a pleasing view, through the arches of other bridges, in a line, and at the end, a church and steeple. This part of the navigation, from the lowness of the *Moor* below the level of the canal, was pronounced by many to be impracticable, and Mr. *Brindley's ne plus ultra*; but this difficulty was removed by perseverance and spirit; a complete bed was made for the canal, raised at bottom as well as the sides, sufficient for conducting the water on a level. This was effected by making a vast case of timber for the whole work: Great piles of deal were fixed as a mound to keep the earth in a proper position to form the banks; and when they were raised, the piles removed on for answering the same work again, and the water brought forwards by degrees, to the astonishment of those who pronounced the work impracticable. It is carried over two brooks here, for which arches are turned.

At *Altringham Bridge* the Duke has a large warehouse on the side of the canal, several stories high, for the convenience of stowing and lodging good, in the trade that is carried on, on this part of the navigation: Also a wharf for selling coals, with cranes erected for loading and unloading boats;

boats: Here, likewise, his Grace's people burn charcoal.

Advancing with the canal, we come to *Dunham*, passing through a lock constructed upon the same principle as the canal-doors, so often mentioned. *Dunham* school is seen upon the left; a plain and unornamented, but elegant front; as pleasing, of the kind, as any one I remember to have seen. A little further, we came to the works then executing, which are of the nature of all in this great undertaking: The canal is here carried over two roads, and the river *Bollam*; and a great inequality in the surface of the country remedied by a system of locks, of which there are eight, within a vast frame-work of timbers, in the distance of about thirty yards. When finished, and the water navigated, all these locks will be passed by a gang of barges, in less than twenty minutes. The canal crosses the roads and the river, on vast arches, in the same manner as already described and represented. The activity and spirit with which the workmen carry on their business, is very pleasing; carpenters, smiths, masons, labourers, boatmen, &c. &c. are all employed in great numbers, so that the works advance with great celerity. Here I observed two very large barges, with a house built in each, and a chimney in one: This is a floating blacksmith's forge and shop,

shop, with all sorts of tools, &c. The other is a carpenter's shop; these are of excellent use in following the works as they advance; saving all the trouble and expence of repeated erections and removals.

The works are also carrying on by near three hundred men, about two miles further; barges have been carried thither by land, and floated for the use of the workmen; but both parts of the canal will soon join, as the business goes on with so much spirit.

Another part of his Grace's design, and which he has an act to enable him to execute, is to extend a branch of his canal from *Sale Moor* to *Stockport*, but not yet begun: That place being a town of considerable manufacture and trade, further very considerable benefits may reasonably be expected to accrue from the encrease of traffic on the canal thereby occasioned. This intended branch is, like the rest, marked in the annexed map, Plate XII, which delineates the whole country through which the navigation extends.

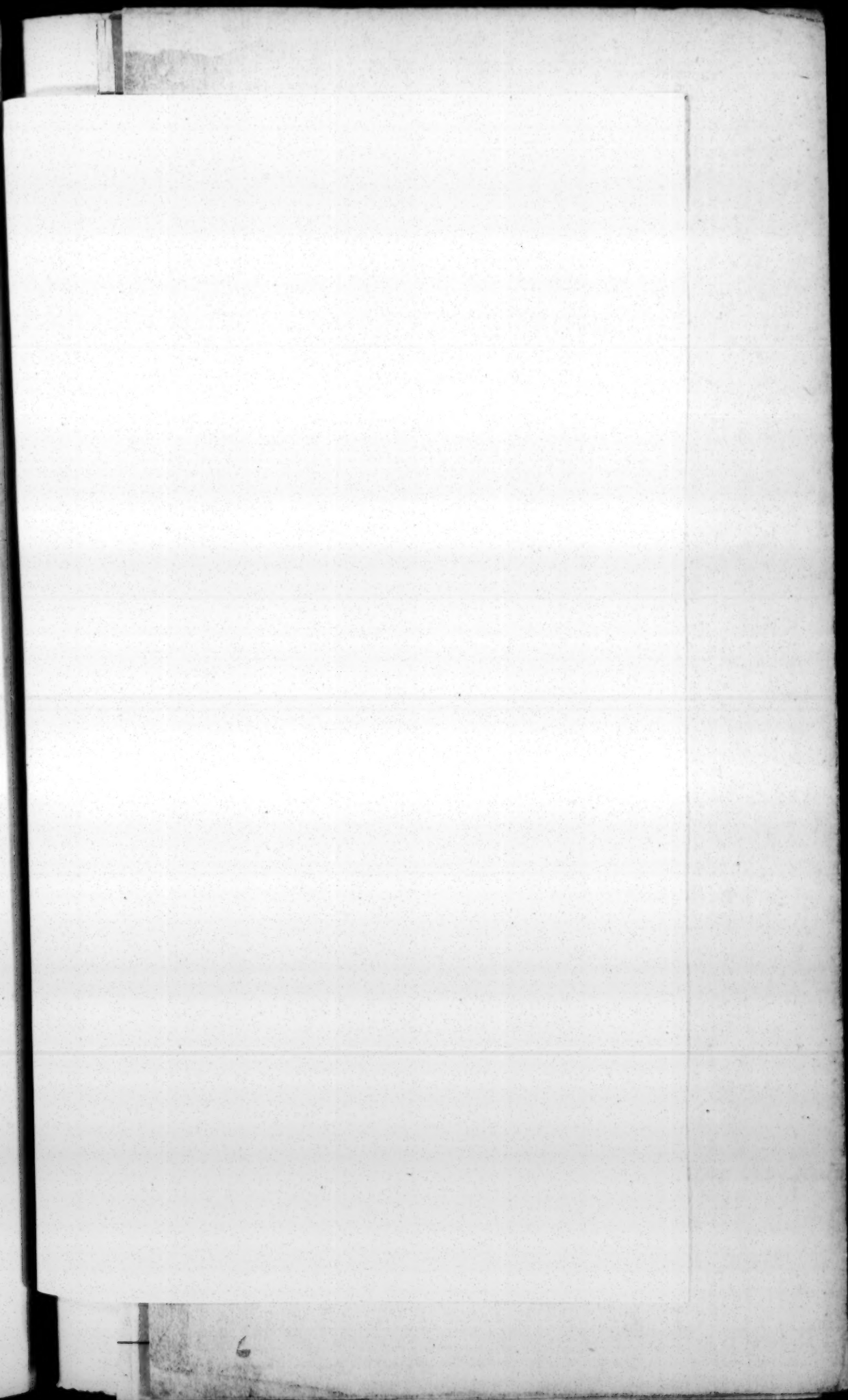
A, A, A. Is the Duke's navigation finished,

B, B, B. Ditto unfinished.

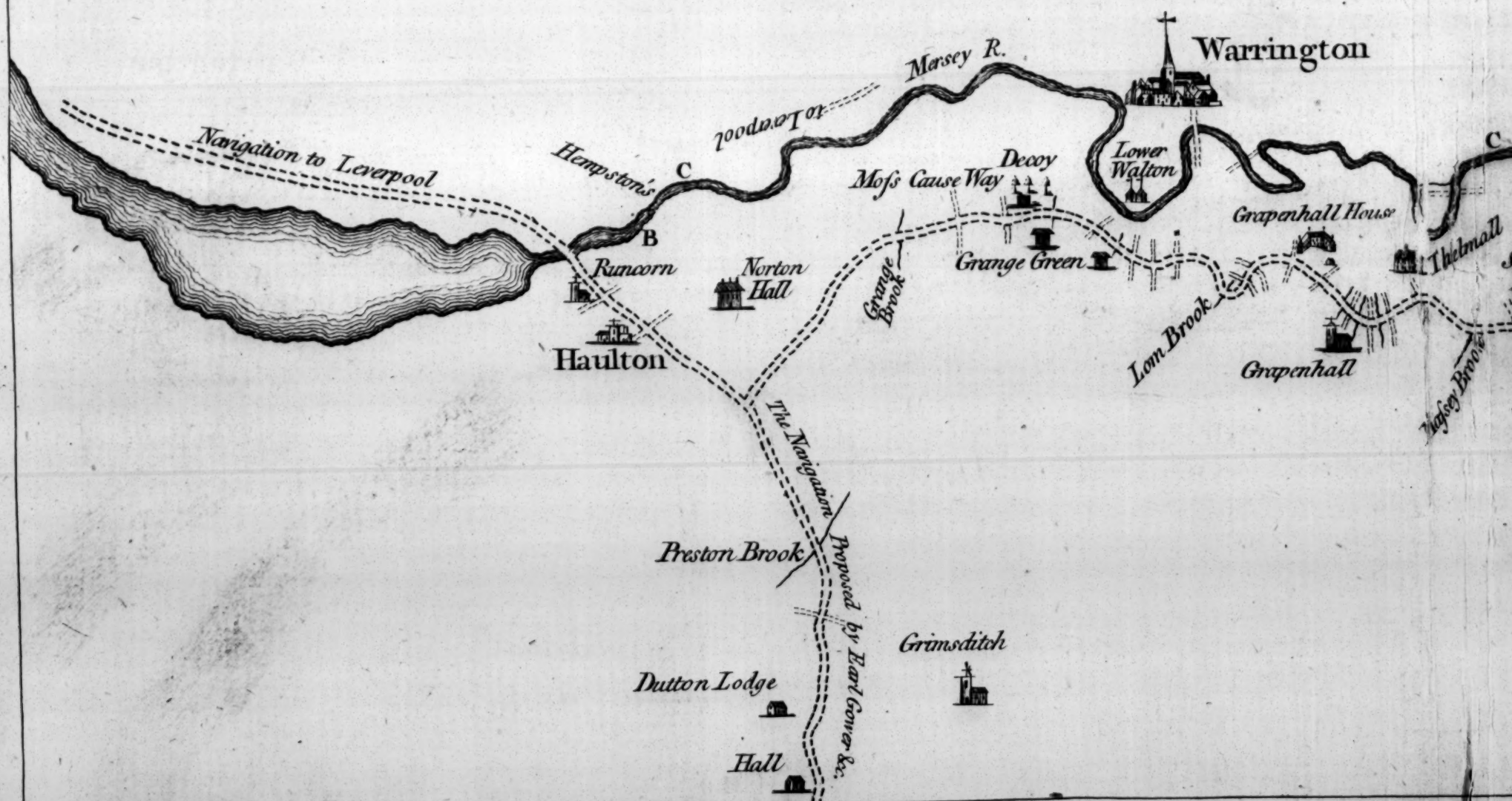
C, C, C. Course of the old navigation.

[] across the canal—The canal-doors.

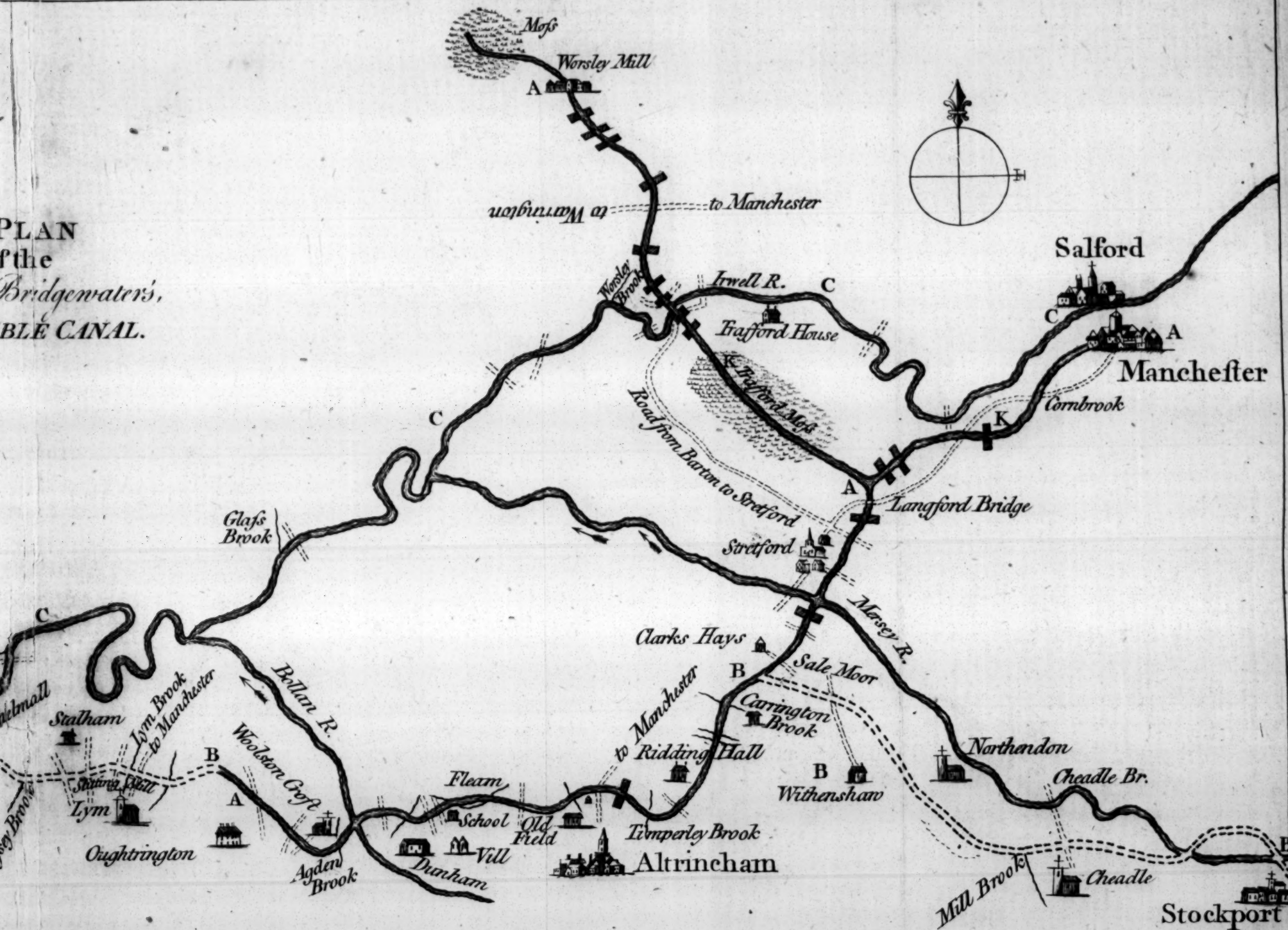
But here I should add, that a scheme, much greater than any thing yet executed,



A PLAN
of the
Duke of Bridg
NAVIGABLE



PLAN
of the
Bridgewater's,
BLE CANAL.



is in contemplation, though not yet come before Parliament. His Grace was first enabled to extend his canal to the *Hempstones*, (see the Map;) but my Lord Gower, and many other persons, obtaining an act for a canal from the *Trent* to the *Mersey*, to communicate between the towns of *Hull* and *Liverpool*; the Duke of *Bridgewater* agreed with them (under authority of Parliament) to vary the course of his intended canal, and meet theirs half way, between *Preston-brook* and *Runcorn*, and then the two canals, united, to be carried to the *Mersey* at *Runcorn*.

Since that Mr. *Brindley* has viewed the river at *Runcorn*, and is of opinion, that the navigation might be carried over it on an aqueduct, and then forwarded directly to *Liverpool*. And we may expect, in a few years, to hear that his Grace has completed his navigation this way, by reaching the *Mersey* at *Runcorn Gap*; after which, this canal will undoubtedly be the easiest, cheapest, and best way of sending goods of all kinds from and to *Liverpool* and *Manchester*.

It is to that period the Duke looks for a reimbursement of the immense sums this navigation has and will cost him: The benefit of water carriage for his coals at *Worsley* to *Manchester*, *Altringham*, &c. is certainly a great advantage; but not near sufficient

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cient to repay the expence of such vast undertakings; but when two such considerable trading and manufacturing towns as *Manchester* and *Liverpool* communicate, by means of this navigation, at a cheaper and easier rate than by the old one, there is no doubt but his Grace will meet with that profitable return his noble spirit so truly deserves.

This scheme is a vast one, and worthy so bold and daring a genius. The river *Mersey*, at that place, is five hundred and sixty yards wide; and at spring tides the water flows near eighteen feet perpendicular. The masts of vessels, which navigate the river itself, are said to be seventy feet high; add to all this, that the river is sometimes rough and boisterous: It is planned, notwithstanding these tremendous difficulties, to carry the canal across the river. The greatest undertaking (if executed) that ever yet was thought of, and will exceed the noblest works of the *Romans*; when masters of the world; or the legendary tales even of *Semiramis* herself.

The excellency and utility of the plan are, however, indisputable: If the canal was carried directly to the town of *Liverpool*, there would at once be a complete, easy, safe, and cheap navigation from that great sea-port directly to *Manchester*, and all the other towns and places near which
the

the canal goes. The present navigation is that of the river *Mersey*, or, in other words, an arm of the sea for several miles, which is at best but an insecure navigation for inland boats, not to say a dangerous one, and occasions such precautions of the expensive kind, that the carriage of goods can never be half so cheap or regular as upon a canal. This river partakes, with others, of disadvantages, to which canals are not subject, such as tides, floods, working one way against a stream, &c. &c. from all which the new navigations are perfectly free; add to this, the old navigation here is cramped with ten times the number of locks, that the canal would be.

But something sure is due to the execution and possession of works, which command the attention and admiration of all *Europe*: The number of foreigners who have viewed the Duke of *Bridgewater's* present navigation, is surprizing; what would it be if his Grace was to extend it over a boisterous arm of the sea:---To exhibit a navigation afloat in the air, with ships of an hundred tons sailing full masted beneath it. What a splendid idea!*

* In some of the controversial writings, published on the proposition of a navigation from *Hull* to *Liverpool*, the prejudiced, or rather interested people, who were staunch friends to the *old* navigations, and, by the by, ridiculed *canals*, in a manner which must now, while such great success attends them, turn, I think, to their shame,

Upon the whole, the uncommon spirit which actuated his Grace the Duke of *Bridgewater* in designing and executing such noble works, can never be sufficiently admired: At an age when most men aim only at pleasure and dissipation, to see him engaged in undertakings, that give employment and bread to thousands; that tend so greatly to advance the agriculture, manufactures, and commerce, of an extensive neighbourhood; in a word, that improve and adorn his country, is a sight so very uncommon, and so great, that it must command our admiration. Nor was it less to his Grace's honour, that, in the execution of these spirited schemes, he had the penetration to discern the characters of mankind so much, as to fix on those people who were

shame, among other arguments asserted the sufficiency of the navigation to *Liverpool* already existing; a stroke in one of their answerers is excellent: --- "The delays
 " and inconveniences render this (the old) navigation
 " ineffectual for the conveyance of the produce *even* of
 " the county of *Chester*; as far the most considerable
 " part of the *cheese* produced in that county is now carried
 " by land, parallel with the whole length of this
 " EXCELLENT navigation, to *Frodsham-bridge*, and
 " *Bank-quay*; from which places it is conveyed by flats
 " to *Liverpool*, there to be re-shipped for *London*, and
 " other markets; and SALT, the other staple article of
 " this county, is sent, in great quantities, all by land carriage,
 " from *Northwich* to *Manchester*, for the supply of
 " that town, and a very extensive and populous neighbourhood,
 " notwithstanding the present navigable communication between those places."

formed

formed by nature for the business; to draw forth latent merit; to bring from obscurity one of the most useful genius's that any age can boast; to throw that genius at once into employment; to give a free scope to his bold ideas; to be unsparing of money in supporting them; and to keep him constantly in a situation of rendering his talents useful to his country; all prove that his Grace has a mind superior to common prejudice; that he is one of those truly great men, who have the soul to execute what they have the genius to plan.

I remain, dear Sir,

yours, very sincerely.

L E T T E R XX.

I Took the road from *Dunham* to *Knutsford*: In that track, land letts from 20 s. to 35 s. *per acre*. Farms rise from 40 l. to 200 l. a year. They reckon the product of a cow at 5 l.

About *Knutsford* there are chiefly two soils, clay and sand. The average rent is about 16 s. an acre. Farms are, in general, about 20 l. or 30 l. but some of 150 l. and 200 l. a year.

Their courses,

- | | |
|-----------|-----------|
| 1. Fallow | 3. Barley |
| 2. Wheat | 4. Oats. |

And,

- | | |
|-----------|-------------------|
| 1. Fallow | 4. Clover for two |
| 2. Wheat | or three years |
| 3. Barley | 5. Wheat. |

The quantity of wheat sown is but trifling. For barley they plow three or four times, sow three bushels, and gain, at an average, five quarters. For oats they plow once, sow five bushels, and gain from forty to fifty. Very few turneps are sown by farmers, but some by gentlemen.

The farmers are getting more into tillage than formerly, and to their prejudice, for barley will only grow with much manure. The town of *Manchester* setting up malt-kilns

kilns in opposition to those of *Yorkshire*, is what encourages the farmers to extend their tillage.

Clover they sow with barley, mow it twice, and gain two ton and an half the first time, and about a ton the second.

Potatoes they prepare for by digging, generally grafs land for the first crop; they slice and dibble them in one foot asunder every way, twenty bushels to the acre: Hand-hoe and hand-weed. The produce generally from three to four bushels from a perch, or about five hundred *per* acre:—Wheat after them. The expences are,

Digging, 2 *l*.

Weeding, &c. 15 *s*.

Taking up, 1 $\frac{1}{2}$ *d*. *per* bushel.

Marle is their chief manure; they have it brown, red, blue, and also shell marle. They lay two square roods and an half *per* acre, which cost them from 3 *l*. to 4 *l*. lay it chiefly upon grafs. Shell marle is of so excellent a nature, that it lasts very good for ten years, and the land constantly cropped—a husbandry not much to the credit of the *Cheshire* farmers. They know nothing of chopping stubble, but stack their hay at home.

Good grafs land letts at about 25 *s*. *per* acre; they apply it chiefly to dairying, and reckon that an acre and half is sufficient for the summer feeding a cow. Their breed of

R 2

horned

horned cattle is a mongrel, between the long and short. The product of a cow they reckon at from 5 *l.* to 8 *l.* Many give in cheese alone to the amount of 6 *l.* 10 *s.* others as follows :

Cheese,	-	-	-	6 <i>l.</i>	0 <i>s.</i>
Butter,	-	-	-	1	0
Calf,	-	-	-		10
					7 10

The average quantity of milk *per* day about four gallons. They do not keep above three swine to twenty cows. Their winter food is hay and straw ; of the first they eat about two ton. A dairy-maid can take care of fifteen. The summer joist is 25 *s.* In the winter they are always kept in the house tied up.

It is supposed in general, that the famous *Cheshire* cheese depends more on the quality of the land, than on any particular receipt.

It has been found, that liming and enriching the land has made it the worse for cheese.

Cold clays are beneficial soils for cheese ; in general, the worst land makes the best cheese.

Many of the great dairy farmers keep their cows like running horses, littered down as well ; kept perfectly clean, and fed constantly with ground oats ; straw only till *Christmas*. Some of these make 8 *l.* 9 *l.* and 10 *l.* profit *per* cow.

The breed even of these is in general small ; will not fat to above thirty-two stone.

None

None of the *Lancashire* long horns will equal them in milking. Some farmers have got a cross breed by *Lancashire* bulls; but it has been found prejudicial to the dairy.

In the management of their milk, the last night's is set for cream, and the milk, with the new of this morn, mixed for the cheese; likewise most of the cream of last night's milk, warmed to the warmth of the new milk. They use nothing but rennet for coagulation. The cheeses weigh from 15*lb.* to 120*lb.*

Their tillage is too trifling to admit a general description; but they reckon the annual expence of a horse at 6*l.* They break up their stubbles for a fallow in *May* or *June*, stir three inches deep. The price of ploughing *per* acre 4*s.* 6*d.* and 5*s.* Know nothing of cutting straw into chaff.

In the hiring and stocking farms they reckon 200*l.* sufficient for one of 50*l.* a year.

Land sells at thirty and thirty-two years purchase.

Tythes both gathered and compounded.

Poor rates 3*s.* in the pound. The employment chiefly spinning of flax. All drink tea.

The farmers carry their corn seven miles, that is, to the Duke of *Bridgwater's* navigation.

Leases run chiefly for three lives.

The general œconomy of their farms will be seen from the following sketches.

200 acres in all	6 young cattle
30 arable	5 fatting beasts
170 grafs	20 sheep
£. 150 rent	3 men
6 horses	2 boys
50 cows	3 maids.

Another,

150 acres in all	5 fatting beasts
40 arable	1 man
110 grafs	2 boys
£. 120 rent	2 maids.
35 cows	

Another,

130 acres in all	40 cows
20 arable	10 sheep
110 grafs	1 man
£. 100 rent	2 boys
4 horses	3 maids.

Another,

50 acres in all	2 horses
5 arable	12 cows
45 grafs	1 boy
£. 45 rent	1 maid.

Another,

38 acres all grafs	9 cows
£. 30 rent	1 boy.
1 horse	

The little farmers in this country are reckoned more wretched than even day-labourers.

L A-

L A B O U R.

In harvest, 1 s. 6 d. and beer.
 In hay time, 1 s. 6 d. and ditto.
 In winter, 1 s.
 Mowing grafs, 1 s. 6 d. to 2 s.
 Ditching, 4 d. to 7 d.

I M P L E M E N T S.

A waggon, 15 l.
 A cart, 9 l.
 A plough, 15 s.
 A roller, 4 l. 10 s.
 A scythe, 2 s. 6 d. to 5 s.
 A spade, 4 s. 6 d.
 Laying a share and coulter, 6 d. and iron.
 Shoeing, 1 s. 4 d.

P R O V I S I O N S, &c.

Bread — barley.
 Cheefe, 2 $\frac{1}{2}$ d.
 Butter, 7 d. 18 oz.
 Beef, 2 $\frac{1}{2}$ d.
 Mutton, 3 $\frac{1}{2}$ d.
 Veal, 4 d.
 Pork, 4 d.
 Milk, $\frac{1}{2}$ d. per quart, skim.
 Potatoes, 1 s. 2 d. per bushel.
 Candles, 7 d.
 Soap, 6 d.
 Labourers house-rent, 30 s. to 3 l.
 ——— firing, 20 s.

At *Knutsford* is a pretty brisk manufacture, particularly a silk mill that employs eighty women and children; the first earn from 4*s.* to 5*s.* a week, and children from 8*d.* to 2*s.*

Also a thread manufacture, in which men earn from 6*s.* to 8*s.* a week: but few women; but children earn from 1*s.* to 2*s.*

Likewise a worsted manufacture; the drawing it from the wool; the earnings,

Men 12*s.* to 14*s.*

Women (spinners) 2*s.* 6*d.* to 3*s.*

Children (ditto) 2*s.*

I advanced southward by *Holm's Chapel*, the soil about that place is chiefly of sand, and clay; lets about 20*s.* at an average. Farms from 20*l.* to 300*l.* a year. Their course generally

1. Fallow
2. Wheat
3. Oats
4. Clover.

- And,*
1. Fallow
 2. Barley
 3. Wheat.

Of wheat the average crop is about twenty bushels, of barley thirty, and of oats as much.

Marle is here the grand manure; they lay about a rood and half on an acre, which costs from 1*l.* 10*s.* to 2*l.* and lasts from twenty to forty years; it is of a brown colour mixed with blue. They also lime their land, generally mix it with dung for wheat; it costs them 10*d.* the *cwt.*

Their grass land lets from 20*s.* to 40*s.* *per* acre, it is all used in dairying. Of meadow

dow land they reckon an acre and half will summer feed a cow, but in the uplands it takes three acres. They are pretty careful in manuring the grafs with lime and earth mixed together.

Their cows are of an ordinary breed, loose boned; some farmers have aimed at an improvement by *Lancashire* bulls, but it does not answer, except in beauty. The average quantity of milk is about five gallons; but some of Mr. *Vernon's* near this place have given ten gallons *per* day. The product of a good cow they calculate as follows:

Four <i>cwt.</i> of cheese, at 32 s.	£. 6	8
Butter, - - - - -	1	0
Calf, - - - - -	1	1
Swine, - - - - -	0	10
	8	19

But the average is not above two *cwt.* and a half of cheese; and the whole amount about 6 *l.* or 6 *l.* 10 s.

They reckon that ten or twelve cows will fat three or four pigs. The calves suck a month. They calculate seven cows the proper number for a dairy maid. They are kept in the house in winter, and fed with hay or straw as the farmer manages: One ton of hay will winter a cow with straw; but if without two tons.

In

In the hiring and stocking farms, they reckon the following sums necessary for one of 100 £. a year.

Twenty cows,	-	-	-	£. 140
Implements,	-	-	-	40
Three horses and gears,	-	-	-	30
Seed,	-	-	-	10
Rent,	-	-	-	50
Housekeeping,	-	-	-	40
Labour,	-	-	-	50
Swine,	-	-	-	2
				362

The general œconomy will be seen from the following sketches.

400 acres in all	12 young cattle
40 arable	2 men
360 grafs	2 boys
£. 250 rent	4 maids
6 horses	6 labourers,
50 cows	

Another,

200 acres in all	20 sheep
30 arable	2 men
170 grafs	2 boys
£. 200 rent	3 maids
3 horses	2 labourers,
30 cows	

Another,

50 acres all grafs	4 young cattle
£. 40 rent	1 boy
1 horse	1 maid.
10 cows	

L A.

L A B O U R.

In harvest, 1*s.* 6*d.* and board.
 In hay-time, 1*s.* 6*d.* and ditto.
 In winter, 10*d.* to 1*s.* small beer and broth.
 Reaping wheat, *per* acre, 3*s.* to 4*s.*
 ——— barley, 3*s.* 6*d.*
 ——— oats, 2*s.* 6*d.*
 Mowing of grass, 1*s.* 3*d.* to 2*s.* 6*d.*
 Thrashing wheat, 2*d.* *per* bushel.
 ——— barley, 1*d.* ditto.
 ——— oats, 1*d.* ditto.
 Head man's wages, 10*l.* and 10*s.* for
 washing.
 Next ditto, 7*l.* 10*s.*
 Boy of ten or twelve years, 20*s.*
 Dairy maids, 40*s.* to 5*l.*
 Other ditto, 30*s.* to 45*s.*
 Women *per* day, in harvest, 1*s.* and beer.
 In hay time, 7*d.*
 Value of a man's board, washing, and lodg-
 ing, 4*s.* a week.

I M P L E M E N T S, &c.

A waggon, 20*l.*
 A cart, 10*l.*
 A plough, 27*s.*
 A harrow, 16*s.*
 No rollers.
 A scythe, 2*s.* 6*d.* to 5*s.*
 A spade, 4*s.*
 Shoeing, 1*s.* 4*d.*

P R O-

P R O V I S I O N S, &c.

Bread — barley.

Cheese, $3\frac{1}{2}d.$

Butter, $8d.$ 18 to 24 oz.

Beef, $2\frac{1}{2}d.$

Mutton, $3\frac{1}{2}d.$

Veal, $3\frac{1}{2}d.$

Pork, $3\frac{1}{2}d.$

Bacon, $6d.$

Potatoes, $4\frac{1}{4}d.$ per peck.

Candles, $7d.$

Soap, $6d.$

Labourers house-rent, 20s. to 35s.

—— firing, 21s.

B U I L D I N G.

Bricks, 12s. per thousand.

Oak timber, 2s.

Ash ditto, 9d. to 1s. 2d.

Mason, per day, 1s. 6d.

Carpenter ditto, 1s. 6d.

I forgot to remark, that all the horses I have seen in *Cheshire*, are of a very bad breed, and worth but little for real use.

From *Newcastle-under-line* I had the pleasure of viewing the *Staffordshire* potteries at *Burslem*, and the neighbouring villages, which have of late been carried on with such amazing success. There are three hundred houses, which are calculated to employ, upon an average, twenty hands each,

each, or six thousand in the whole; but if all the variety of people that work in what may be called the preparation for the employment of the immediate manufacturers, the total number cannot be much short of ten thousand, and it is increasing every day.

It dates its great demand from Mr. *Wedgwood* (the principal manufacturer) introducing, about four years ago, the cream-coloured ware, and since that the increase has been very rapid. Large quantities are exported to *Germany, Ireland, Holland, Russia, Spain, the East Indies*, and much to *America*: Some of the finest sorts to *France*. A considerable shopkeeper from the *Pont-neuf* at *Paris*, was lately at *Burslem*, and bought a large quantity: It is possible, indeed, he came for more purposes than to buy; the *French* of that degree seldom travel for business, which might be as well transacted by a single letter.

The common clay of the country is used for the ordinary sorts; the finer kinds are made of clay from *Devonshire* and *Dorsetshire*, chiefly from *Biddeford*; but the flints from the *Thames* are all brought rough by sea, either to *Liverpool* or *Hull*, and so by *Burton*. There is no conjecture formed of the original reason of fixing the manufacture in this spot, except for the convenience of plenty of coals, which abound under all the country.

The

The flints are first ground in mills, and the clay prepared by breaking, washing, and sifting, and then they are mixed in the requisite proportions. The flints are bought first by the people about the country; and by them burnt and ground, and sold to the manufacturers by the peck.

It is then laid in large quantities, on kilns, to evaporate the moisture; but this is a nice work, as it must not be too dry: Next it is beat with large wooden hammers, and then is in order for throwing, and is moulded into the forms in which it is to remain: This is the most difficult work in the whole manufacture. A boy turns a perpendicular wheel, which, by means of thongs, turns a small horizontal one, just before the thrower, with such velocity, that it twirls round the lump of clay he lays on it, into any form he directs it with his fingers.

The earnings of the people are various.

Grinders, 7 *s.* *per* week.

Washers and breakers, 8 *s.*

Throwers, 9 *s.* to 12 *s.*

Engine lath men, 10 *s.* to 12 *s.**

Handlers, who fix hands, and other kinds of finishers, for adding sprigs, horns, &c. 9 *s.* to 12 *s.*

Gilders,

Men, 12 *s.*

Women, 7 *s.* 6 *d.*

* Mr. *Wedgwood* was the first person who introduced this machine into a porcelaine manufacture.

Modellers, apprentices, one of 100 *l.* a year.

Pressers, 8 *s.* to 9 *s.*

Painters, 10 *s.* to 12 *s.*

Moulders in plaister of *Paris*, 8 *s.*

In general the men earn from 7 *s.* to 12 *s.* Women 5 *s.* to 8 *s.* Boys, chiefly apprentices, but 2 *s.* a week, the first year, and a rise of 3 *d.* *per annum* afterwards. Before they are apprentices 2 *s.* 9 *d.* *per week*, as they then learn nothing. But few girls.

We principally owe the possession of this most flourishing manufacture to the inventive genius of Mr. *Wedgwood*; who not only originally introduced the present cream coloured ware, but has since been the inventor of every improvement; the other manufacturers being little better than mere imitators; which is not a fortunate circumstance, as it is unlucky to have the fate of so important a manufacture depend upon the thread of one man's life: However, he has lately entered into partnership with a man of sense and spirit, who will have taste enough to continue in the inventing plan, and not suffer, in case of accidents, the manufacture to decline.

I took the opportunity of being at *Bur-slem*, to view the amazing works carrying on at *Harecastle*. The navigation I mentioned in describing that of the Duke of *Bridgewater*, promoted by Lord *Gower*, and carried on by subscription, to join the
ports

ports of *Hull* and *Liverpool*, is carried across the kingdom, without any very material interruption, except at *Harecastle*; but there it follows a valley, which, contrary to most, terminates against hills, without any winding around them; so that the navigation must either be here stopped, and a land carriage, like the *American* ones, at the falls in their rivers, be the consequence, or the range of hills, which faced them, pierced through: The attempt was an immense one; but it is made, and will undoubtedly succeed.

The tunnel in the Duke of *Bridgwater's* navigation, is of a small breadth, as it is the termination of the canal, and boats made on purpose for entering it; but *Harecastle* being almost in the center of a navigation of an hundred miles, a subterrane must of necessity be spacious enough to admit all the traffic of the canal, passing and repassing, or it would be useless. The canal is therefore carried under-ground in its common breadth and depth; it is twelve feet wide, and nine high; and will extend under an high range of country above a mile and half. The first estimate, or rather supposition of the expence, was 10,000 *l.* but it is now said that that sum will prove very insufficient; the immensity of the undertaking not having (relative to the estimate) been duly considered.

It is certainly an amazing work: About four hundred yards of it are finished. The method

method of conducting, is sinking shafts like those of coal pits, in a line over the course of the canal; engines are then erected, and the earth, rock, coal, and all the substances that rise, drawn up by a horse, which is kept regularly employed in drawing up the stuff, as fast as the workmen dig it below, in hollowing out the cavern: It is walled, paved, and arched, as they finish. Other machines, worked by wind and water, are erected also to draw up the water: The whole work is carried on regularly, and all obstructions removed as fast as they are discovered. In a word, the success is not doubted; but as to the extent of the expence, it cannot admit of calculation, as it is impossible to conjecture the nature of the strata they will have to cut through, the hardness of the rock, or the quantities of water with which they will be troubled. I was told that the navigation will be in some places near two hundred feet below the surface.

By such noble undertakings is the present age peculiarly distinguished. When agriculture, manufactures, and commerce flourish, a nation grows rich and great, and riches cannot abound, without exciting that general industry, and spirit for improvement, which at last leads to performing works, which, in poorer times, would be thought wonders.

At *Newcastle* is a considerable manufacture of shoes and hats; the first employs above an hundred hands, who earn from 10 *d.* to 2 *s.* a day. Of the latter there are three or four hundred; the men earn from 7 *s.* to 10 *s.* a week.

Women, 3 *s.* to 6 *s.*

Children, 1 *s.*

P R O V I S I O N S, &c.

Bread — maflin, 1 *d.*

Cheefe, 3 *d.*

Butter, 8 *d.*

Beef, 3 *d.*

Mutton, 3 *d.*

Veal, 3 *d.*

Milk, $\frac{1}{2}$ *d.* per pint.

Potatoes, 4 *d.* per peck.

Poors house-rent, 40 *s.* to 3 *l.* 10 *s.*

— firing, 20 *s.* to 25 *s.*

From *Newcastle* southwards the country improves greatly in beauty: The foil towards *Stone* is generally a sandy loam. About that place it is also sandy, on a bed of marle; lets from *Newcastle* to *Stone*, and also around that place, from 12 *s.* to 20 *s.* per acre. Farms are various, rising from 30 *l.* to 500 *l.* a year. Their courses are chiefly,

- | | |
|-----------|------------------|
| 1. Fallow | 5. Clover two or |
| 2. Wheat | three years |
| 3. Oats | 6. Oats |
| 4. Barley | 7. Beans. |

A vile, as well as strange course.

Another

Another is,

- | | |
|-----------|------------|
| 1. Fallow | 5. Turneps |
| 2. Wheat | 6. Barley |
| 3. Oats | 7. Clover. |
| 4. Barley | |

Which is almost as odd as the other.

The average products of corn are,

Of Wheat, - 22 bushels

Barley, - 30

Oats, - 40

Beans, - 30

Pease, - 25

For turneps they plow three times : Good farmers hoe them twice : The average value from 50 s. to 3 l. 10 s. They use them both for sheep and beasts. Clover they sow with spring corn, mow it the first year, and get about a ton and half of hay at a mowing.

Their method of cultivating potatoes, is to dung grass land well, and dig it in, which costs 7 d. a perch ; then dibble in the slices (tho' some farmers plant them whole.) While they are growing they are hand-hoed and kept clean. The product 450 bushels at an average.

The chief manure in this country is marle, which is generally laid on the arable lands at the rate of an hundred and twenty loads *per* acre, each twenty-five hundred weight ; if the marle pit is at any distance, the expence will be 10 l. or 12 l. *per* acre ; but if it is on the same piece, it will be done for

S 2 3 l. 10 s.

3*l.* 10*s.* or 4*l.* They likewise use a little lime; find it answers best on cold springy land; they lay it on the fallows twenty bushels *per* acre; the price 7 $\frac{1}{2}$ *d.* *per* bushel. They know nothing of chopping the stubbles, but stack their hay at home.

Good grass lets at 30*s.* *per* acre; it is chiefly used for dairying: One acre they reckon sufficient for the summer feed of a cow. Some few farmers marle it.

The breed of cattle is the long horned: The oxen fat from forty-eight to eighty score. The product of a cow they reckon,

Three hundred weight of	<i>l.</i>	<i>s.</i>
cheese, at 27 <i>s.</i>	4	1
Butter, - - - -	0	10
Calf, - - - -	0	10
	5	1

The average quantity of milk five gallons a day. They keep about four hogs to ten cows, which is also the number they reckon proper for a dairy maid to look after. The winter food is hay and straw; the quantity of the first is various; but many farmers give their cows very little hay, so that the quantity rises from five hundred weight to a ton. Keep them in a house.

They fat their hogs from fifteen to thirty-five score.

No account could be taken of their flocks of sheep, as they in general only winter them.

In

In their tillage they reckon eight horses necessary for the management of an hundred acres of arable : They use three or four in a plough, and do an acre and quarter, and an acre and a half in a day. The annual expence of a horse they reckon 7 *l*.

They do not break up their stubbles for a fallow till after barley sowing. The price of plowing *per* acre is 5 *s*. and the common depth four inches. They know nothing of cutting straw into chaff.

The hire of a cart, three horses, and driver, *per* day, is 5 *s*.

In the hiring and stocking of farms, they reckon 350 *l*. a sufficient sum to take one of 100 *l*. a year.

Land sells from thirty to forty-five years purchase,

Tythes are both gathered and compounded; if the latter,

Wheat, from 3 *s*. to 5 *s*.

Barley, 3 *s*.

Oats, 2 *s*.

Hay, 1 *s*. 6 *d*.

Poor rates 1 *s*. 6 *d*. in the pound. Idleness the chief employment of the women and children : All drink tea, and fly to the parishes for relief, at the very time that even a woman for washing is not to be had. By many accounts I received of the poor in this neighbourhood, I apprehend the rates are burthened for the spreading

laziness, drunkenness, tea-drinking, and debauchery:—The general effect of them, indeed, all over the kingdom.

Leases are various, both for terms from seven to twenty-one years, and for two and three lives.

The general œconomy will be seen from the following particulars of farms.

400 acres in all	50 sheep
150 arable	3 men
250 grafs	1 boy
£.300 rent	2 maids
12 horses	6 labourers
36 cows	2 waggons
12 fatting beasts	3 carts
30 young cattle	3 ploughs,

Another,

200 acres in all	20 sheep
90 arable	2 men
110 grafs	1 boy
£.150 rent	2 maids
9 horses	3 labourers
20 cows	1 waggon
3 fatting beasts	3 carts
20 young cattle	3 ploughs,

Another,

90 acres in all	1 man
30 arable	1 boy
60 grafs	1 maid
£.60 rent	1 labourer
4 horses	3 carts
6 cows	2 ploughs.
8 young cattle	

Another,

Another,

140 acres in all	10 sheep
70 grafs	2 men
70 arable	1 boy
£.115 rent	1 maid
8 horfes	2 labourers
14 cows	1 waggon
6 fatting beasts	2 carts
12 young cattle	3 ploughs.

Another,

125 acres in all	1 boy
80 arable	2 maids
45 grafs	3 labourers
£.100 rent	1 waggon
8 horfes	3 carts
15 cows	3 ploughs.
2 men	

Another,

50 acres in all	4 cows
35 arable	3 young cattle
15 grafs	1 man
£.45 rent	2 carts
4 horfes	1 plough.

L A B O U R.

In harvest, 1 s. 6 d. and beer.

In hay time, 1 s. 2 d. and ditto.

In winter, 1 s. and ditto.

Reaping *per* acre, 4 s. 6 d.

Mowing barley, 1 s. 6 d.

——— oats, 1 s. 4 d.

——— grafs, 1 s. 4 d.

S 4

Hoeing

Hoeing turneps, 4 s. 6 d.
 ——— beans, 2 s. 6 d.
 Ditching, 4 d. — eight yards.
 Threshing wheat, 4 s. 6 d. twenty bushels,
 ——— barley, 3 s. 4 d.
 ——— oats, 22 d. to 2 s. 6 d.
 ——— beans, 4 s. 6 d.
 Filling marle cart, 5 s. *per* hundred and
 twenty loads, and board.
 First man's wages, 8 l.
 Next ditto, 6 l.
 Boy of ten or twelve years, 3 l.
 Dairy maids, 3 l. 10 s.
 Other ditto, 3 l. 10 s.
 Women *per* day in harvest, 7 d. and beer.
 ——— in hay time, ditto.
 Value of a man's board, washing, and lodg-
 ing, 6 l. 10 s.

IMPLEMENTS, &c.

A waggon, 20 l.
 A cart, 12 l.
 A plough, 14 s.
 A harrow, 18 s.
 A roller, 9 l. to 10 l. for corn.
 A scythe, 3 s. 6 d.
 A spade, 3 s. 6 d.
 Shoeing, 1 s. 4 d.

PROVISIONS, &c.

Bread — Wheat, 1 $\frac{1}{2}$ d.
 Cheese, 3 $\frac{1}{4}$ d.

Butter,

Butter, $7\frac{1}{2}d.$
 Beef, $2\frac{1}{2}d.$
 Mutton, $3\frac{1}{2}d.$
 Pork, $3\frac{1}{2}d.$
 Bacon, $5d.$
 Milk, $\frac{1}{2}d.$ per pint.
 Potatoes, $4\frac{1}{2}d.$ per peck.
 Candles, $7d.$ per lb.
 Soap, $6d.$
 House-rent, $2s. 6d.$ to $20s.$

BUILDING,

Bricks, per thousand, $11s. 6d.$
 Tiles, $17s.$
 Oak timber, $1s. 2d.$ to $2s.$
 Ash, $11d.$ to $1s. 3d.$
 Elm, $9d.$ to $1s. 3d.$
 Carpenter per day, $1s. 6d.$
 Mason, $1s. 6d.$
 Thatcher, $1s.$ and board.

The country continues to improve towards *Rudgley Bridge*: About that place the soil is various; clay, sandy gravel, and loams. The average rent of the arable is $14s.$ and the grass $20s.$

Farms rise from $20l.$ to $100l.$ a year.

The courses,

- | | |
|-----------|------------|
| 1. Fallow | 3. Barley |
| 2. Wheat | 4. Barley. |

And,

- | | |
|-----------|-------------------------|
| 1. Fallow | 3. Oats |
| 2. Wheat | 4. Clover, three years. |

Also,

Also,

- | | |
|-----------|------------|
| 1. Fallow | 3. Turneps |
| 2. Barley | 4. Barley. |

From *Rudgley Bridge* to *Lichfield* land lets from 20s. to 3l. an acre; average about 25s. Farms from 20l. to 200l. a year.

About *Shenstone* the soil is light, sandy, and gravelly; lets at 15s. an acre upon a medium. Farms from 20l. to 400l.

The course,

- | | |
|------------|--------------------------|
| 1. Turneps | 3. Barley |
| 2. Barley | 4. Clover, 2 or 3 years. |

Some farmers continue this course as follows;

- | | |
|----------|----------|
| 5. Wheat | 6. Oats. |
|----------|----------|

They plow thrice for wheat; sow two bushels, and reap, on an average, twenty-five. For barley they stir twice, sow three and an half, or four bushels, and gain upon a medium forty. Oats they generally sow on turf, plough it once, sow four bushels, and reckon the mean crop at forty-five. They sow a few pease; upon turnep land four bushels *per* acre, and gain about thirty in return.

For rye they stir twice; sometimes sow it on turf on one earth; two bushels of seed; the crop thirty. For turneps they plough thrice; hoeing is coming into fashion pretty fast, about half the crops in the country being now hoed; but they do it only once; the value of the hoed crops 35s. *per* acre, but

but the unhoed ones only 20 s. which one would apprehend a sufficient argument even to convince farmers themselves. They use them chiefly for sheep.

Clover they sow with spring corn, mow it but once, and gain about two ton of hay *per acre*. Their culture of potatoes consists in dunging grass land, and digging it in; they then dibble in the potatoe slices ten inches from each; and while growing hand hoe them well. The average product *per acre* is about four hundred bushels: They sow wheat after them, and get fine crops.

They have some marle, but not in large quantities, being uncertain where to find it; it is an excellent manure; the colour is red; they lay sixty three-horse cart loads on an acre. Lime is their principal manure; they lay eight quarters *per acre*; it lasts good two years, and costs 4 s. 6 d. a quarter, with carriage. They neither fold their sheep, nor chop their stubbles. They find the best method of using their dung is to make composts of it with ditch-stuff and earth.

They drain many of their wet lands, dig them from two feet to three feet and a half deep, four inches in width at bottom, and fourteen at top, fill up with stones a foot deep, then lay in the fods and earth.

Good grass land lets from 20 s. to 25 s. *per acre*. It is mostly used for dairying; an acre they reckon sufficient to summer feed

feed a cow: the best farmers manure it with composts of dung and earth.

The breed of cattle is the long horns; oxen fat from sixty to eighty stone. They reckon the annual product at 5*l.* 10*s.* or 6*l.* The average quantity of milk *per* day six gallons. To twenty cows they keep about six hogs. The winter food is straw; and at, and after calving, hay. The calves for killing, suck three or four weeks; but for rearing, not at all. Ten cows are the number a dairy-maid generally takes care of. The summer joist is 30*s.* and in winter they reckon a cow to eat fifteen *cwt.* of hay on an average; they then keep them in the farm yard.

Upon fattening a beast of forty score they reckon 40*s.* profit.

Their hogs fat up to twenty score.

Their flocks of sheep rise from ten to two hundred; the profit varies from 8*s.* to 20*s.* The winter and spring food is turneps; the joist upon which 4*d.* *per* week. The average fleece 8 *lb.*

In their tillage they reckon six horses necessary for the management of an hundred acres of arable land, use three or four in a plough, and do an acre a day.

The annual expence of a horse they reckon at 10*l.* The summer joist is 50*s.* There are a few ox teams, but horses are supposed to be much the best, so that the
number

number decreases. They do not break up their stubbles for a fallow till the spring. The price of plowing 5*s.* *per* acre; the depth from two to four inches. Many farmers cut straw into chaff; which is the first time I have met with the practice this age.

The hire of a cart, three horses, and a driver a day, is 7*s.*

In stocking farms they reckon 250*l.* sufficient for one of 100*l.* a year.

Lands sell at from thirty to thirty-five years purchase. There are many small estates of 100, 200, and 300*l.* a year.

Tythes are both gathered and compounded; if the latter,

Wheat, 4*s.* Oats, 2*s.* 6*d.*

Barley, 3*s.* Pease, 2*s.* 6*d.*

Poor rates 6*d.* in the pound; the women and children are in idleness; but tea-drinkers.

The farmers carry their corn ten miles.

Leases are generally for terms of seven or fourteen years; but some for two and three lives.

The following particulars of farms will shew the general œconomy of the country.

700 acres in all	30 fatting beasts
300 arable	200 sheep (and more
400 grafs	in winter)
£.400 rent	4 men
10 horses	2 boys
12 draft oxen	4 maids
26 cows	10 labourers.

Ano-

Another,

250 acres in all	15 cows
130 arable	40 sheep
120 grafs	2 men
£. 210 rent	1 boy
8 horfes	3 labourers.
8 oxen	

Another,

100 acres in all	2 fatting beasts
60 arable	20 sheep
40 grafs	2 men
£. 70 rent	1 boy
6 horfes	2 maids
10 cows	2 labourers.

Another,

85 acres in all	5 fatting beasts
50 arable	1 man
35 grafs	1 boy
£. 70 rent	1 maid
4 horfes	1 labourer.
6 cows	

Another,

60 acres in all	5 cows
40 arable	10 sheep
20 grafs	1 boy
£. 40 rent	1 maid.
4 horfes	

Another,

30 acres in all	£. 25 rent
10 arable	3 horfes
20 grafs	4 cows.

L A B O U R.

- In harvest, 1 s. and beer.
 In hay time, ditto.
 In winter, 10 d. and ditto.
 Reaping wheat, 7 s. to 10 s. *per acre*.
 Mowing corn, 2 s. to 2 s. 6 d.
 ———— grass, 2 s. to 3 s.
 Hoeing turneps, 5 s.
 Ditching, 6 d. *per eight yards*.
 Threshing wheat, 4 d. *per bushel*.
 ———— barley, 2 d.
 ———— oats, 1 $\frac{1}{2}$ d. to 2 d.
 ———— beans, 1 d. to 2 d.
 Digging, 6 d. *per eight yards square*.
 Amount of a year's earnings of a labourer,
 15 l.
 First man's wages, 10 l. to 12 l.
 Next ditto, 6 l. to 7 l.
 Boy of ten or twelve years, 50 s.
 Dairy maids, 3 l. to 5 l.
 Other ditto, 50 s.
 Women *per day* in harvest, 6 d. and board.
 In hay time, ditto.
 In winter, 5 d. and beer.
 The value of a man's board, washing, and
 lodging, 9 l.

I M P L E M E N T S.

- A waggon, 20 l.
 A cart, 7 l. to 9 l.
 A plough, 21 s.

A har-

A harrow, 21 s.

A scythe, 4 s. 6 d.

A spade, 3 s. 6 d.

Laying a share and coulter, 8 d. to 1 s. 4 d.

Shoeing, 1 s. 4 d.

Harness, 25 s. *per* horse ; use the same both
for carting and plowing.

PROVISIONS, &c.

Maalin bread, 1 d.

Cheese, 2 $\frac{1}{2}$ d.

Butter, 8 d. 16 to 19 oz.

Beef, 2 $\frac{1}{2}$ d.

Mutton, 2 $\frac{1}{2}$ d.

Pork, 3 d.

Milk, $\frac{1}{2}$ d. *per* pint.

Potatoes, 4 d. *per* peck.

Candles, 7 d.

Soap, 6 d.

Labourer's house rent, 20 s. to 50 s.

----- firing, 30 s. Much hedge breaking.

Coals, 4 d. *per* hundred weight.

Faggots, 6 s. to 9 s. *per* 120.

BUILDING.

Bricks, 11 s. 6 d. *per* thousand.

Oak timber, 1 s. 4 d. to 2 s.

Elm, 20 d.

Carpenter, 1 s. 6 d. a day.

Farm houses of brick and tile.

The preceding husbandry continued for
some distance towards *Birmingham*. At *Aston*
I made

I made particular enquiries, and found several variations.

The soil is all sandy; lets from 15s. to 20s. an acre. Farms mostly small, but from twenty to two hundred.

The courses,

- | | |
|------------|----------------------|
| 1. Turneps | 4. Clover two years, |
| 2. Barley | some few add |
| 3. Oats | 5. Wheat; |

And,

- | | |
|------------|-----------|
| 1. Turneps | 4. Clover |
| 2. Barley | 5. Oats. |
| 3. Oats | |

For wheat they plow four times, sow two bushels and a half, and reap from twenty-three to twenty-five. They give three stirrings for barley, sow from three to four bushels, and reckon twenty-five the average product. For oats they give but one earth, sow five bushels, and gain upon a medium four quarters. They plow but once for pease, sow three bushels, and sometimes hand-hoe them; the crop twenty bushels. Turneps they prepare for by three stirrings; hoeing is now common; generally once, and sometimes twice: The average value 40s. *per* acre. They reckon the hoed crops better than the unhoed by 20s. an acre; they are used for sheep and beasts. Clover they sow with spring corn, mow it once, and gain about a ton and a half of hay *per* acre. A little buck wheat is cultivated for swine.

For potatoes they dig up grass land, and dibble in the setts; get fine crops of five or six hundred bushels *per* acre; and very good wheat after them.

Lime is their principal manure; they lay nine quarters *per* acre, at 2*s.* a quarter, besides leading; they mix it with dung, earth, &c.

Hollow draining is not uncommon in this country; they dig them from two to four feet deep, generally till they come to a bed of gravel: They fill them up a foot deep with furnace cinders, heath, ling, &c. &c. They are from four to eight inches wide at bottom, and twenty inches, or two feet, at top.

Good grass land lets from 20*s.* to 40*s.* an acre. Most of it is applied to feeding cows, for supplying *Birmingham* with milk. Many farmers manure it. The product of cows in that way amounts from 6*l.* to 10*l.* a cow; a middling one will give six or seven gallons a day. The winter food is hay alone, of which they eat in general three hundred weight a week. The calves do not suck above two weeks. The summer joist *per* cow is 1*s.* 6*d.* a week: In the winter, after calving, they are kept in the house.

Sheep are kept only by farmers that have a right of commonage; the profit they calculate at 8*s.* a head. The average fleece, two pounds and a half to three pounds.

In

In their tillage they reckon six horses necessary for the management of an hundred acres of arable land: They use two or three in a plough, and do an acre a day. The annual expence *per* horse they calculate at 5*l*. The summer joist 2*s*. a week.

They break up their fallows for turneps at *Christmas*; the depth of stirring in general from three to six inches. Much straw is here cut into chaff.

The hire of a cart, three horses, and driver, 5*s*. to 5*s*. 6*d*.

Many farmers hire farms of 100*l*. a year with 350*l*. but it was the opinion of several sensible husbandmen I conversed with, that upwards of 500*l*. is necessary to do it completely. That sum they divided as follows:

Thirty cows,	-	-	-	-	£. 210
Six horses,	-	-	-	-	60
Two waggons,	-	-	-	-	35
Two carts,	-	-	-	-	10
Harness,	-	-	-	-	6
Sundry small articles,	-	-	-	-	6
Rent,	-	-	-	-	50
Rates,	-	-	-	-	10
Housekeeping, two men, two maids, two boys, and the farmer and wife,					60
Seed,	-	-	-	-	15
Hogs,	-	-	-	-	4
Wages,	-	-	-	-	28
Labourers,	-	-	-	-	25
					519

Land sells at thirty years purchase.

Tythes are in general compounded, *per* acre,

Wheat, 5*s*.

Oats, 2*s*. 6*d*.

Barley, 2*s*. 6*d*.

Pease, 2*s*. 6*d*.

Poor rates, 1*s*. to 1*s*. 6*d*.

The employment of the women and children spinning. All drink tea.

Leases are various, both lives and terms.

The following sketches of farms will shew the general œconomy.

86 acres in all	15 cows
26 arable	1 man
60 grafs	2 maids
£.75 rent	2 carts
3 horses	1 plough.

Another,

70 acres in all	12 cows
20 arable	1 boy
50 grafs	1 maid
£.55 rent	2 carts
3 horses	1 plough.

Another,

40 acres all grafs	1 horse
£.40 rent	1 boy.
12 cows	

Another,

35 acres all grafs	1 horse
£.30 rent	1 boy
11 cows	1 maid.

L A B O U R.

In harvest, 1*s.* and board.
 In hay time, ditto.
 In winter, 8*d.* and ditto.
 Reaping, 4*s.* 6*d.* to 5*s.* *per* acre.
 Mowing corn, 1*s.* 6*d.*
 ----- grafs, 2*s.*
 Hoeing turneps, 5*s.*
 Ditching, 4*d.* to 8*d.*
 Threshing wheat, 4*d.* *per* bushel.
 ----- barley, 3*d.*
 ----- oats, 2*d.*
 Digging, 6*d.* a rood.
 First man's wages, 7*l.* to 8*l.*
 Next ditto, 4*l.* 10*s.* to 5*l.* 10*s.*
 Boy of ten or twelve years, 40*s.*
 Dairy maids, 3*l.* to 3*l.* 10*s.*
 Other ditto, ditto.
 Women *per* day in harvest, 6*d.* and beer.
 In hay time, ditto.

I M P L E M E N T S.

A waggon, 20*l.*
 A cart, 6*l.*
 A plough, 21*s.*
 A harrow, 15*s.*
 A barley roller, 15*s.*
 A scythe, 2*s.* 6*d.* to 3*s.* 6*d.*
 A spade, 3*s.* 6*d.*
 Shoeing, 1*s.* 6*d.*

PROVISIONS, &c.

Wheat bread, 11 *lb.* for 1 *s.*
 Cheefe, 2 $\frac{1}{2}$ *d.*
 Butter, 8 *d.*
 Beef, 2 $\frac{1}{4}$ *d.*
 Mutton, 2 *d.*
 Pork, 3 $\frac{1}{2}$ *d.* to 4 *d.*
 Milk, $\frac{1}{2}$ *d.* *per* pint.
 Potatoes, 4 *d.* *per* peck.
 Candles, 7 *d.*
 Soap, 6 $\frac{1}{2}$ *d.*
 Labourer's house rent, 30 *s.* to 50 *s.*
 ----- firing, 20 *s.* to 30 *s.*
 ----- tools, 7 *s.* 6 *d.*
 Coals, 12 *s.* a ton.
 Faggots, 16 *s.* 120.

BUILDING.

Bricks, 11 *s.* *per* thousand.
 Tiles, 12 *s.*
 Oak timber, 1 *s.* to 2 *s.* 6 *d.*
 Ash ditto, 1 *s.* to 2 *s.*
 Elm, 1 *s.* to 1 *s.* 6 *d.*
 Carpenter a day, 1 *s.* 8 *d.*
 Mason ditto, 1 *s.* 8 *d.*
 Their labourers, 1 *s.* 4 *d.*

Having finished so long an epistle, you
 must allow me to conclude, that I am, &c.

L E T-

L E T T E R X X I.

I WAS no where more disappointed than at *Birmingham*; where I could not gain any intelligence even of the most common nature, through the excessive jealousy of the manufacturers. It seems the *French* have carried off several of their fabricks, and thereby injured the town not a little: This makes them so cautious, that they will shew strangers scarce any thing; it was even with some difficulty that I gained the following slight intelligence.

Manufacturers of all sorts.

Men earn 7*s.* to 3*l.* per week.

Women, 2*s.* 6*d.* to 7*s.*

Children, 1*s.* 6*d.* to 4*s.* 6*d.*

About twenty-eight thousand souls calculated in the town.

The manufacture more flourishing than ever in the war; fell upon the peace, and has of late arose again, but not near equal to its former height.

From this town I pointed my way to the *Leasowes*, the seat of the late Mr. *Shenstone*, now of Capt. *Turnpenny* *. In that line of

* Arriving at *Hales Owen*, we walked up to the *Leasowes*; but here I should intimate, that as the late Mr. *Dodsley* gave a particular account of these grounds in so popular a book as *Shenstone's Works*, I shall only minute a few circumstances,

country lands lets at an average at 12*s.* per acre. Farms from 20*l.* to 200*l.* a year.

In this country is dug the famous blazing cannel coal.

To-morrow I return to Husbandry; allow me, therefore, here to conclude myself, &c.

either omitted in that account, or finished since it was wrote: And take the liberty of remarking wherein Mr. *Dodsley* fell short of, or exaggerated the beauty of his original.

The cascade, viewed from the root house, inscribed to the Earl of *Stamford*, is astonishingly romantic; a large space of ground at your feet, for above an hundred and fifty yards, is thickly covered with the stems of fine oaks, &c. a fall of water at the farther end of this ground first breaks to your view, and then forms twenty more before it reaches you, all broke into distinct sheets, wildly irregular, by the intervening and crossing stems of the trees above; their branches and leaves form a fine thick canopy of shade, which sett's off most gloriously the sheets of water, which here and there meet the sun beams, and sparkle in the eye. This intermixture of wood and water is amazingly fine.

From the bench, inscribed

To all friends round the Wrekin,

you look down upon a very beautiful variety of unequal ground; all waving cultivated inclosures, finely scattered with houses, villages, &c. the pools appearing in broken sheets among the wood in the valley: At the bottom of the slope is a kind of river, but the end is badly hid with a little trifling *Chinese* bridge: However, from the spot,

L E T T E R XXII.

THE foil about *Hagley* is various; light loams, sand, and cold stiff spungy clays. The average rent is about 20s. an acre: There is some arable that letts at 30s. and some meadows so high as 3*l*. Farms from 50*l*. to 200*l*. a year.

spot, which Mr. *Dodsley* calls a cavity in a small thicket filled with trees, the serpentine stream has a better effect.

After this, we next meet with a green bench with this inscription:

—— “ While Nature here

“ Wantons as in her prime, and plays at will

“ Her virgin fancies.”

It is well placed, commanding a sweet variety of wood, water, and waves of cultivated inclosures.

The walk and seat marked

Divini Gloria Ruris!

in Mr. *Dodsley*, is no where to be found.

The view from *Thomson's* seat is exquisite and inimitable; sweetly varied; the water admirably managed: In a word, it is a little scene of enchantment.

From *Hales Owen* we took the road to *Hagley*, the seat of Lord *Littleton*. The house is an excellent living one; a well-designed mean between the vast piles raised for magnificence, and those smaller ones, in which convenience is alone considered.

The Hall is thirty feet square: It is ornamented with Statues of *Venus de Medicis*, *Bacchus*,
&c.

The courses,

- | | |
|------------|-------------------|
| 1. Turneps | 6. Clover, two or |
| 2. Barley | three years, and |
| 3. Pease | then some add |
| 4. Wheat | 7. Wheat on one |
| 5. Barley | earth. |

Also,

- | | |
|-----------|-------------------|
| 1. Fallow | 4. Clover and ray |
| 2. Wheat | grafs. |
| 3. Oats | |

Ec. Ec. and various busts : The *Hercules's* which support the cornice of the chimney piece are heavy : Here are likewise bas-reliefs, *Ec.*

The Library, thirty-three by twenty-five, is a good room ; the cieling ornamented with scrolls of stucco work. Here are pictures :

Richardson. Pope, and his dog *Bounce*.

Aickman. Thomson.

Gilbert West.

The Dressing-room is twenty-one feet square.

Van Capen. Poultry.

Wotton. Landscape. Fine ; but there is a light on the goats in the corner, which does not seem in unison with the rest.

Jonson. Lady Littleton, wife of Sir Thomas.

Zuccharo. Sir John Littleton.

Van Somer. Sir Thomas Littleton.

Jonson. Sir Alexander Temple.

Mirevelt. Prince of Orange.

Greenhill. Mr. Henry Littleton.

Corn. Jonson. Lady Crompton. Very fine.

Ditto. Queen of Bohemia.

Ditto. A Lady unknown.

Dobson. Prince Maurice.

Hontbrust. Sir R. Stainmore.

They plow four times for wheat, sow two bushels on cold lands before *Michaelmas*; and gain, upon an average, twenty-eight bushels. For barley they stir three times, sow three bushels and a half in *March*, or *April*, and gain upon an average thirty-five; sixty have been raised. They stir but once for oats, sow four bushels before barley seed time; the mean crop thirty-six. They likewise give but one plowing

In the Crimson Bed-chamber,

Le Fevre. Dutchess of *Portsmouth*.

Reynolds. Lord *Littleton*.

Williams. Miss *Fortescue*, his first Lady.

In the Best Dressing-room, twenty square, an elegant chimney piece of white marble, the cornice supported by ionic pillars. The cieling white ornaments in stucco on a lead coloured ground. Here are

Vandyke. The three *Maries* and a dead *Christ*. Exceedingly fine; admirably grouped; the colours most expressive.

Storck. A sea piece.

Lely. A lady unknown.

Brugbel. A landscape; most minutely expressive.

Unknown. A sea piece. Also views of *Persfield*.

Houfeman. *Charles II*, and *Queen*.

Wotton. A landscape. Very fine.

Glow. Horses.

Cypriani. *Arcadian* shepherds. The attitudes and groupes exceedingly pleasing. Colours brilliant.

Viviano. An *Alto relievo*. Fine and spirited.

Lely.

for pease, sow three bushels and a half, or four; never hoe them; and get thirty in return. For rye they plow twice, sow two bushels and a half; the crop twenty.

For turneps they give three plowings; do not hoe them: The average value 30s. *per acre*; use them chiefly for sheep. Clover they sow with barley or oats; mow the first crop, of which they get three tons of hay *per acre*, and graze it afterwards. Many farmers mix trefoile with it.

Lely. *L. Cary.*

Wyck. A battle piece: In the stile of *Borgognone*.

Cypriani. The triumph of *Bacchus*; a drawing. Fine.

The Saloon, thirty-six by thirty. The chimney piece very beautiful, of *Siena* and white marble; the cornice supported by ionic pillars. In the centre of the frieze three boys in white marble polished, and on each side a scroll of white on a *Siena* ground. Here are

Rubens. The marriage of *Neptune* and *Cybele*. The lady is a *Rubens* figure with a vengeance, and her attitude disgusting.

Vandyke. Earl and Countess of *Carlisle*. Very fine.

Titian. *Venus* reconciling herself to *Psyche*. Her figure clumsy, but somewhat more delicate than *Rubens's*: His attitude very expressive, but not of the subject. Colours fine, but their brilliancy gone off.

Bassan.

Some few tares sown, for feeding horses with, green. Very few potatoes.

Lime is the principal manure ; they lay one waggon load *per* acre ; formerly they had as much as they could carry for 9s. or 10s. but now only sixty bushels for 13s. or 14s. they use it for turneps, and find it answers best on light land : Some few farmers mix earth with it.

Bassan. *Jacob* and his family. Prodigious fine. The minute strength of expression in the figures to the left great.

Vandyke. The royal family.

Jervois. *Charles I.* and his Queen.

The Drawing-room, thirty-four by twenty-two. The chimney piece scrolls of white marble trailed on *Siena* ; pleasing. Lord *Bath*, by *Ramsay*, over it, inclosed in ornaments, very neatly carved and gilt. The cieling an oval, in the centre, *Flora*, by *Cypriani* ; and in the corners the Seasons : Her attitude pleasing, and the colours fine. The glass frames in this room are elegantly carved and gilt. Slabs of *Siena* marble.

Ramsay. Earl of *Hardwicke*.

Vanloo. Earl of *Chesterfield*.

Ditto. Lord *Cobham*.

Unknown. Mr. *Pelham*.

The Gallery, eighty-five by twenty-two, in three divisions, formed by double corinthian pillars. The chimney piece, glass, table frames, and the girandoles carved in black and white.

Vandyke. Virgin and child. Very noble : Her attitude incomparably fine : The air of her head great : The child admirable.

Ditto.

Draining is pretty well understood here, and that chiefly owing to the excellent example of Lord *Littleton*, who ordered many drains to be dug of various depths, and three or four inches wide at bottom; the method used in filling them on grass land (where they were chiefly made) was to take the first spit of turfs, and wedge them into the drains, and then throw in the moulds, without stone, wood, or any thing; and

Ditto. Countess of *Bedford*.

Lely. Miss *Brown*.

Ditto. Lord *Brouncker*.

The Dining-room, thirty-three by twenty-six. Here are,

Zuccharelli. Landscape; a waterfall, and bridge; pleasing.

Ditto. Another; water, and a boat. *Ditto.*

Wilson. Landscape; ditto.

But what at *Hagley*, are most worthy of notice, are the grounds, which Lord *Littleton* has disposed with the utmost taste.

The walk from the house leads through a wood, by the side of a purling stream, which meanders over grass from out a dark hollow; you pass a gush of water, which falls into it, and winding higher up the hill, turn by the side of another brook; which gurgles through a rocky hollow: Another gushing fall, over bits of rock, attracts your notice; which passing, you come to the Prince of *Wales's* statue. This spot commands a fine view of the distant country over the house.

Winding from hence through the wood, you look to the left upon distant grounds, until you
come

the drains thus made have stood exceedingly well, and never yet failed. It is an excellent contrivance, and highly worthy of imitation, and especially in countries where stones and wood are scarce.

The common farmers also drain their morassy lands in a very effectual manner, by cuts a yard wide at top, sixteen inches at bottom, and four feet deep; they fill up eighteen inches deep, with logs of wood

come to a feat, inscribed to *Thomson*, in these lines:

Ingenio immortalī

JACOBI THOMSON,

Poetæ sublimis,

Viri boni,

Ædiculam hanc in secessu quem vivus dilexit,

Post mortem ejus constructam,

Dicat, dedicatque,

GEORGIUS LITTLETON.

From hence you look down on a fine lawn, and, in front, upon a noble bank of hanging wood, in which appears a temple. To the left a distant view of *Malvern* hills.

Passing a well, called after the patriarch, from which you have a distant view of a hill over the wood, you enter a grove of oaks, in which you catch a glance at the castle, through the trees, on the top of the hill, beautifully rising out of a bank of wood.

Next we came to an ionic rotunda, inclosed in a beautiful amphitheatre of wood; it looks down upon a piece of water in the hollow of a grove, at the end of which is a palladian bridge. The scene

and faggots, and then the moulds. The cost of these drains is 1*s.* the perch of eight yards. The improvement is extremely great; they make land of 5*s.* an acre worth 30*s.* at once.

They stack their hay at home; and some few have got into the way of chopping their stubbles; convinced not only of the importance of littering cattle well, but also of raising large quantities of manure.

scene is pleasing. From hence the path winds through a fine wood of oaks, in which is a bench, by the side of a trickling rill, with this inscription:

Inter cuncta leges, et per cunctabere doctos,
 Quâ ratione queas traducere leniter ævum,
 Quid minuat curas, quid te tibi reddat amicum,
 Quid purètranquillet, honos an dulce lucellum,
 An secretum iter, et fallentis semita vitæ.

Which lines are well suited to the sequestred retired spot in which they are placed. The path then leads by the stream, and under the trees, to a fine open lawn inclosed by wood; at one end an urn inscribed to *Pope*:

ALEXANDRO POPE,
 Poetarum Anglicanorum elegantissimo, dulcissimoque,
 Vitiorum castigatori acerrimo,
 Sapientiæ doctori suavissimo,
 Sacra esto.

1744.

Passing two benches, and a slight gush of water, you rise to the ruined castle; from the top of which is a very beautiful view, down upon the woods,

Good grass land lets in general from 2*l.* to 3*l.* an acre, and is used mostly for dairying; but the country, however, is chiefly in tillage. An acre will summer feed a cow; or keep seven sheep. They universally water their grass fields whenever it can be done, which they find the greatest improvement of all. Their breed of cattle is the long horns. The product of a cow they reckon 6*l.* or 6*l.* 10*s.* They used to

woods, lawns, slopes, &c. and a prodigiously extensive prospect over the country. *Worcester*, *Dudley*, the *Clee Hills*, are a part of the scene; the *Wrekin*, at forty miles, and, it is said, *Radnor-tump*, at eighty miles distance.

Following the path, you pass a triangular water, the meaning of which I do not understand, and walk down under the shade of oaks, by the side of a winding woody hollow, to the seat of contemplation,

Sedes Contemplationis.

Omnia Vanitas.

The view is only down into the hollow among the trees. Next we came to the hermitage, which looks down on a piece of water, in the hollow, thickly shaded with tall trees, over which is a fine view of distant country. This water is somewhat too regular. In the hermitage this inscription:

“ And may, at last, my weary age

“ Find out the peaceful hermitage,

“ The hairy gown, and mossy cell,

“ Where I may sit, and rightly spell

“ Of every star that heaven doth shew,

“ And every herb that sips the dew,

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“ Till

be lett at 3 *l.* rent; but now it is much higher. The average quantity of milk, four or five gallons. To three cows they generally keep two pigs: And seven they reckon the proper number for a dairy maid. Barley straw is the winter food till *Candlemas*, then some hay, of the latter about a ton to a cow. They are kept all winter in

“ Till old experience do attain,
 “ To something like prophetic strain,
 “ These pleasures, Melancholy, give,
 “ And I with thee will chuse to live.”

Il Penseroso.

Winding down, you come to a root cave by the water's edge; a retired spot; and at the other end of the *pond* a cave of grotto work.

Coming out of the grove, and rising the hill, you command to the left, as you move, a most beautiful view of the country, a noble sweep of inclosures of a charming verdure, to a bench, from which you look into the vale on the house at your feet, with a sweet little stream serpentine by it. And then to another bench inscribed from *Milton*:

“ These are thy glorious works, Parent of Good!
 “ Almighty! thine this everlasting frame,
 “ Thus wondrous fair! Thyself how wondrous then,
 “ Unspeakable! who sits above these heavens
 “ To us invisible, or dimly seen
 “ In these thy lowest works; yet these declare
 “ Thy goodness beyond thought, and power divine.”

You

the farm yard, the summer joist is 2*s.* a week. The calves suck in general four or five weeks.

The flocks of sheep rise from forty to four, five hundred, and a thousand, on commons. The profit in inclosures they reckon doubling their money, or about 10*s.* or 12*s.* a head, and on the commons about

You look down on lawns, *gay smiling with eternal green*, thinly scattered with trees; on one side of which is the house; around the whole a vast range of inclosures: To the right you catch a most beautiful small green hill, with a clump of trees upon it. This view is noble indeed!

Turning to the right into a grove, you presently come to a scene most delicious! At your feet is spread forth a lawn of the finest verdure, a cool sequestered hollow, surrounded with thick wood; above which, in front, you catch *Thomson's Seat*, in the very spot of elegance itself; on a sweet little green hill, the top of which just shews itself above the trees, and half discloses the temple almost embosomed in wood. A little to the left of it, and higher, is the *Grecian* portico, finely backed with a spreading grove. Over that, on a noble sweep of irregular hill, rises the obelisk, backed with a vast range of wood, in the grandest stile: The variety of ground fine, and the whole of it ornamented with surprizing taste as well as magnificence. A better assemblage of unconnected objects managed most skillfully to form one whole, can scarcely be imagined: Yet have I read a description of *Hagley*, in which it is thus mentioned:—"You turn into a thicket,

2 s. or 2 s. 6 d. There is no folding. The average fleece about 1 lb $\frac{1}{2}$, or 2 lb. sells at 1 s. a pound.

In their tillage they reckon seven horses necessary for an hundred acres of arable land. They use three at length in a plough with a driver, and do an acre a day.

“and HAVE A LOOK at the Doric Pavilion,
“Thomson’s Seat, and the Obelisk.”

Leaving this noble scene, the path brings you to a bench under a very fine oak, which looks down, as before, on the hollow lawn; in front you view the green hill, with the clump of trees on it, which here appears exquisitely beautiful: On one side of it distant water is seen most picturesquely among the trees, and over all the *Wrekin* rears his venerable head.

Pursuing the walk through the grove, you come to the seat inscribed

Quieti & Musis,

which commands very elegant scenes: You look down on a green hollow, surrounded by fine oaks; to the right on water through the trees: Rising above this lower scene, you look to the left upon *Thomson’s Seat*, thickly backed and surrounded with wood; above it the obelisk appears very nobly. To the right a *Gothic* house (the parsonage) seen obscurely among the trees; likewise inclosures broken by wood rising one above the other.

You then come to a bench under a stately oak commanding a lawn; to the right *Pope’s* urn, and a rising hill crowned with a clump of trees; and following the path, it brings you to a very fine

But a new invention is coming in very fast, which is the use of double ploughs; which with only the addition of one horse, do double the work, by turning two furrows at once: It is no gimcrackery business, but so solid and strong a machine that the *common* farmers approve it, and accordingly some hundreds of them are made.

fine dell arched with wood, and a great variety of water in a hollow at your feet. To the right, close to you, a spring gushes out of the ground on rock work, and falls into a stream in the hollow. Further on another rill murmurs over broken rocks, and uniting with the same stream, it falls again, and winds away most beautifully among the wood. Upon the seat is this inscription:

“Hic gelidi fontes, hic mollia prata Lycori;

“Hic nemus: hic ipso tecum consumere ævo.”

Crossing the dell, you rise to another seat, the stream winding in the hollow beneath; and the whole under the shade of large oaks: To the right you catch an urn, and look back upon the ionic rotunda. Turning to the left, and coming to the urn, you find it inscribed as follows:

To the Memory of
WILLIAM SHENSTONE, Esq;

In whose Verses

Were all the natural Graces,

And in whose Manners

Was all the amiable Simplicity

Of pastoral Poetry,

With the sweet Tenderneſs

Of the Elegiac.

U 3

Paſſing

In Plate XII. fig. 1. is a sketch I took of one of them.

The annual expence of a horse, they reckon at 6*l.* or 6*l.* 10*s.* The summer joist is 2*s.* 6*d.* and 3*s.* a week. The time of breaking up the stubbles for a fallow is about *May-day*. The price of plowing *per acre* 6*s.* the depth three to five inches.

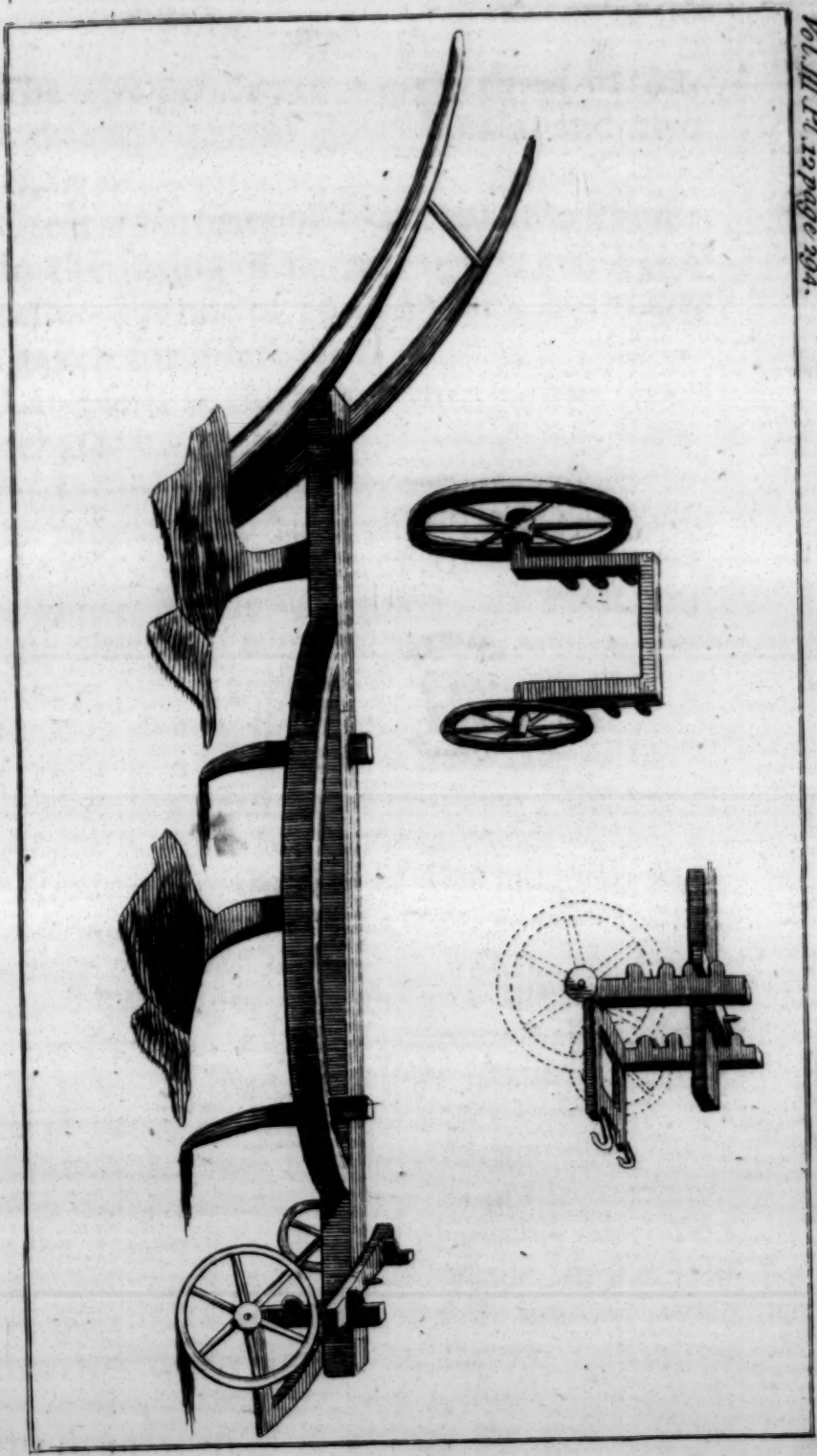
Passing on, we came to a bench by the side of the winding stream, thickly covered with wood; and entering a grove almost impervious to the sun, met with a bench around a vast oak, that commands a fine variety of scenery. To the right you look upon the river, and rising among the wood the rotunda strikes your eye; the situation admirable; to the left you command the palladian bridge, having a fresh view of the water, in a hollow all overhung with wood: Behind, on a fine hill, is the seat *Quieti & Musis*.

Returning through the grove, you pass several benches, and arrive at one surrounded by the most bewitching scenes: It is a moss seat, with this inscription:

“Ego lauda ruris amœni

“Rivos & musco circumlita faxa nemusque.”

The spot is totally sequestered, and might almost be called the paradise for contemplation to indulge in: The whole is over arched with the shade of tall spreading trees; it is surrounded with banks of shrubby wood, of moss, and ivy; the eye cannot wander from the beautiful, in search of the sublime; nor will one sigh ever be heard on this bench, for distant prospect. In front you look upon a cascade, breaking from
out





The hire *per* day of a cart, three horses, and driver, 5*s.* of four horses and two carts, 7*s.*

Great quantities of straw cut into chaff.

In the hiring of farms they reckon 550*l.* necessary for one of 100*l.* a year; but many are taken for a less sum.

Land sells at thirty and thirty-three years purchase.

out a perpendicular bank of ivy; and presenting to the eye a beautiful fall of transparent water, that glitters in this dark grove; the effect amazingly fine. It takes a natural course, and breaking over a ground of rock, moss and ivy, loses itself among the shrubs at your feet. To the right is a sweet little watery cave of rock, in which is a small statue of *Venus*; the rest of the scene is a fine dark shade of wood.

Winding up the side of the hill, you look down on a romantic irriguous woody valley; hearing the noise of falling water, but seeing none. Coming to a bench, you just look down to the right on a gushing stream half covered with trees; in front, *Venus* embosomed in a hollow of wood.

Winding round the sides of the river, you come to the palladian bridge; a portico'd temple of the ionic order; the view admirably fine. You look full upon a beautiful cascade, broke into two sheets by a rock, which falls into the water over which the bridge is thrown. A little above this a piece of wild ground is half seen, and further on a lawn, at the end a green swelling hill, upon which stands the rotunda:

Tythes are generally taken in kind.

Poor rates 3*s.* to 4*s.* in the pound; the employment of the women and children spinning; all drink tea.

The farmers carry their corn three or four miles.

Leases are in general upon terms, from seven to twenty-one years.

the line of view to these objects is through a thick tall wood, which gives a solemn brownness to the whole scene, very noble. The inscription:

“ Viridantia Tempe,
“ Tempe quæ sylvæ cingunt super impendentes.”

Leaving this exquisite spot, you turn through a grove by several slight water-falls, and come out not far from the house.

These grounds, upon the whole, cannot be sufficiently praised: The natural variety is great, and the advantage of being so nobly cloathed with venerable oaks, peculiarly fortunate; but art has added fresh lustre to every feature of nature, and created others which display a pregnant invention, and a pure and correct taste. Waters that are trifling in themselves, are thrown into appearances that strike and delight the mind, and exhibited in such an amazing variety, that one would be tempted at first to think the source vastly more considerable than it in reality is. Let me further add, that the buildings have an equal variety, are all in a most just taste, and placed with the utmost judgment, both for commanding the most beautiful scenes, and also for assisting in forming them, themselves.

The

The following are particulars of several farms in this neighbourhood.

100 acres in all	1 man
10 grafs	2 maids
90 arable	1 boy
£.120 rent	1 labourer
7 horfes	3 waggons
6 cows	2 carts
5 young cattle	3 ploughs.
150 sheep	

Another,

150 acres in all	200 sheep
30 grafs	2 men
120 arable	1 boy
£.110 rent	2 maids
8 horfes	3 labourers
12 cows	3 waggons
2 fatting beafts	2 carts
4 young cattle	3 ploughs.

Another,

135 acres in all	130 sheep
100 arable	1 man
35 grafs	2 boys
£.90 rent	4 labourers
6 horfes	3 waggons
7 cows	3 carts
1 fatting beaft	2 ploughs.
5 young cattle	

Another,

80 acres in all	£.50 rent
12 grafs	4 horfes
68 arable	6 cows
	4 young

4 young cattle	1 labourer
10 sheep	1 waggon
1 man	2 carts
1 boy	2 ploughs.
1 maid	

Another,

45 acres in all	5 young cattle
10 grafs	1 boy
35 arable	1 maid
£.25 rent	1 labourer
3 horses	2 carts
6 cows	1 plough.

L A B O U R.

In harvest, 1 s. and board.

In hay-time, ditto.

In winter, 1 s. and beer.

Reaping 5 s. 6 d. to 6 s.

Mowing corn, 1 s. 6 d.

———— grafs, 2 s. to 2 s. 6 d.

Ditching, 4 $\frac{1}{2}$ d. to 6 d. eight yards.

Thrashing wheat, 3 $\frac{1}{2}$ d. per bushel.

———— barley, 2 d.

———— oats, 1 $\frac{1}{2}$ d.

———— pease, 2 d.

Amount of a year's earnings, 15 l. to 16 l.

Head man's wages, 10 l.

Next ditto, 6 l. 10 s. to 7 l.

Boy of ten or twelve years, 2 l. 15 s.

Dairy maids, 3 l. 10 s.

Other ditto, 2 l. 15 s.

Women per-day, in harvest, 6 d. and board.

Women

Women in hay time, 6*d.* and beer.

—— in winter, 5*d.*

Value of a man's board, washing, and lodging, 10*l.*

I M P L E M E N T S, &c.

A waggon, 18*l.*

A cart, 8*l.* to 9*l.*

A plough, 1*l.* 1*s.*

A double ditto, 3*l.* 10*s.*

A harrow, 1*l.* to 1*l.* 5*s.*

A scythe, 3*s.* 6*d.* to 4*s.*

A spade, 4*s.*

Pointing a coulter and share, 4*d.*

Shoeing, 1*s.* 4*d.*

Cart harness, 1*l.* 5*s.* *per* horse.

P R O V I S I O N S, &c.

Bread — Wheat, 3 $\frac{1}{2}$ *lb.* for 6*d.*

Cheese, 4*d.*

Butter, 7*d.* 18 *oz.*

Beef, 3*d.*

Mutton, 3 $\frac{1}{4}$ *d.*

Veal, 3*d.*

Pork, 3 $\frac{1}{2}$ *d.*

Milk, $\frac{1}{2}$ *d.* *per* pint.

Potatoes, 4*d.* to 6*d.* *per* peck.

Candles, 7 $\frac{1}{2}$ *d.* *per* *lb.*

Soap, 7*d.*

Labourers house-rent, 2*l.* 10*s.* to 3*l.*

—— firing, 30*s.*

—— tools, 5*s.*

B U I L D.

BUILDING.

Bricks, 12s. per thousand.

Tiles, 14s.

Mason, per day, 1s. 4d.

Carpenter, 1s. 4d.

Thatcher, 1s. and board.

In the parish of *Hagley* are the following farms, besides small spots, and Lord *Littleton's* park.

Nº. 1	200 acres	£. 140 rent
2	80	50
3	68	40
4	45	25
5	70	30
6	150	85
7	80	80
8	200	130
9	160	120
10	135	90
11	30	15
12	140	70
13	25	48
	1383	£. 923

In the whole about two thousand acres.

The cattle upon these farms are as follow :

Nº. 1	7 horses	10 cows	30 sheep
2	4	6	10
3	5	4	10
4	3	6	0

Nº. 5

N ^o . 5	8	10	30
6	7	4	150
7	6	14	200
8	7	7	200
9	7	8	150
10	5	5	120
11	3	1	40
12	7	8	160
13	5	0	0
	74	83	1100

My next stage was to *Broomsgrove*, where the husbandry is as follows :

The soil is of two sorts, sand and clay; rents high, from 20 s. to 40 s. an acre. Farms from 40 l. to 200 l. a year.

The courses,

- | | |
|----------------------------------|-------------|
| 1. Fallow | 6. Turneps |
| 2. Wheat | 7. Barley |
| 3. Barley | 8. Pease |
| 4. Clover, two or
three years | 9. Oats |
| 5. Wheat | 10. Clover. |

Which would be, upon the whole, excellent, did not the barley and wheat come together at first.

The average crops are,

- Of wheat thirty-five to forty bushels.
- Of barley forty to forty-five.
- Of oats fifty.
- Of beans forty, set and hoed.
- Of pease thirty.

For

For turneps they plow three or four times; no hoeing, which is very extraordinary among farmers that hoe their beans. The average value is 30*s.* *per* acre; they use them for sheep and beasts.

For potatoes they generally plow up the turf, and dibble the slices in one foot from each other. While growing they hand hoe and hand weed well. They get large crops in this manner, and very fine wheat or barley after them.

They have plenty of marle in this country, chiefly red and blue; they lay thirty-three horse cart loads on an acre; and reckon that it lasts very good five or six years; costs 3*l.* an acre; it is reckoned a vast improvement. Of lime they lay a waggon-load *per* acre of sixty bushels; it costs 1*l.* carriage included.

The product of a cow they reckon at 3*l.* to 4*l.* the quantity of milk from two to six gallons a day.

Very few sheep kept.

In their tillage they reckon eight horses necessary for the management of one hundred acres of arable land; use four in a plough, and do an acre a day. Some farmers have the double ploughs, which they work also with four horses. They calculate the annual expence of a horse at 8*l.* *May* is the time of breaking up the stubbles for a fallow;

fallow; and the price of plowing 4*s.* to 5*s.* *per* acre; the depth four to six inches.

The hire of a cart, three horses, and a driver, 8*s.* a day.

They practise the cutting of straw into chaff in common.

Four hundred pounds they reckon necessary for a man who hires a farm of 100*l.* a year.

Tythes both gathered and compounded; if the latter,

Wheat pays 5*s.*

Pease 4*s.*

Barley 4*s.*

Poor rates, 1*s.* to 2*s.*

Oats 2*s.* 6*d.*

The following particulars of farms will shew the general œconomy.

60 acres in all	2 men
40 arable	1 boy
20 grafs	1 maid
£. 100 rent	1 labourer
6 horses	2 waggons
15 cows	2 carts
5 young cattle	2 ploughs.

Another,

200 acres in all	20 young cattle
40 grafs	20 sheep
160 arable	3 men
£. 180 rent	2 boys
10 horses	3 maids
20 cows	4 labourers.
6 fatting beasts	

Another,

Another,

40 acres in all	5 cows
10 grafs	8 young cattle
30 arable	1 boy
£. 53 rent	1 maid.
4 horfes	

Another,

55 acres in all	8 cows
15 grafs	10 young cattle
40 arable	1 man
£. 69 rent	1 boy
5 horfes	1 maid.

L A B O U R.

In harvest, 1 s. and board.

In hay time, ditto.

In winter, 9 d. 10 d. and beer, and a dinner
now and then.Reaping, 4 s. 6 d. to 5 s. *per* acre.

Mowing corn, 1 s.

———— grafs, 2 s.

Threshing wheat, 3 d. a bushel.

———— barley, 1 $\frac{1}{2}$ d.

———— oats, 1 d.

———— pease, 1 d.

Amount of a labourer's year's earnings, 20 l.

First man's wages, 8 l.

Next ditto, 6 l.

Boy of ten or twelve years, 50 s.

Dairy maids, 3 l.

Other ditto, 50 s.

Women *per* day in harvest, 6 d. and board.

In

In hay time, ditto.

In winter, 6*d.* and beer.

Value of a man's board, washing, and lodging, 6*l.*

IMPLEMENTS, &c.

A waggon, 20*l.*

A cart, 8*l.*

A plough, 1*l.* 1*s.*

A harrow, 15*s.*

A roller, 10*s.* 6*d.*

A scythe, 3*s.*

A spade, 4*s.*

Laying a share and coulter, 1*s.*

Shoeing, 2*s.*

Cart-harnes, 30*s.* *per* horse.

PROVISIONS, &c.

Bread — wheaten, 1 $\frac{1}{2}$ *d.*

Cheese, 3 $\frac{1}{2}$ *d.*

Butter, 7*d.* 17 *oz.*

Beef, 3*d.*

Mutton, 3 $\frac{1}{2}$ *d.*

Veal, 2 $\frac{1}{2}$ *d.*

Pork, 4*d.*

Milk, $\frac{1}{2}$ *d.* *per* pint.

Potatoes, 4*d.*

Candles, 7*d.*

Soap, 7*d.*

Labourer's house-rent, 30*s.* to 50*s.*

—— firing, 30*s.*

At *Broomsgrove* I first remarked the abominable custom of stripping up the timber trees, to make them look like Maypoles, to the utter destruction of the timber, and distorting the face of the whole country.

Four miles on this side of *Worcester* land letts from 15 s. to 40 s. an acre; farms from 20 l. to 200 l. a year.

Worcester is a very well built, and handsome city: The great street is remarkably fine. It is supposed to contain about eleven or twelve thousand souls. There are several manufactures carried on here, of which that of the glovers is the most considerable, employing several thousands of hands.

Men earn from 7 s. to 9 s. *per week*.

Women 4 s. to 5 s.

Children 1 s. 6 d. to 3 s. 6 d.

Burying crapes are also made here; the men in which branch earn from 5 s. to 9 s. a week.

The porcelane works are very famous; but not carried to that degree of perfection which some have asserted: The clearness of the ground, and the beauty of the paintings, are neither of them equal to the *Dresden*, which it is pity they do not aim, with more spirit, to equal, and then excel. It is well known that all the porcelane in *Europe* may be melted in a *Dresden* cup, unhurt; and that the *Dresden* cup will itself melt in an old *China* one, unhurt; which shews the
amazing

amazing perfection that empire had long ago attained in every part of the curious arts that do not depend on design. The earnings of the people employed at *Worcester* are various,

Men from 12 s. to 3 l. 15 s. a week.

The Labourers 6 s. and 7 s.

Children 1 s. to 3 s.

From *Worcester* I took the road to *Oxford*, through a country whose agriculture is extremely various. At *Perthore* I made enquiries, and found that the soil is all of the heavy kind, either clay or loam: Inclosed lands lett from 15 s. to 20 s. per acre. The open at 10 s. Farms from 60 l. to 150 l.

Their courses,

1. Fallow

3. Beans

2. Barley

4. Wheat.

A most excellent course for heavy land.

1. Fallow

3. Pease

2. Barley

4. Wheat.

Also,

1. Turneps

3. Clover, one year

2. Barley

4. Wheat.

This likewise excellent. The average crops as follow :

Of wheat twenty-five bushels.

Of barley twenty-four.

Of beans twenty-five.

Of pease twenty-five.

They plow three times for turneps ; never hoe, 1 l. 10 s. the average value.

X 2

They

They use a little lime, twenty bushels *per* acre, $3\frac{1}{2}d.$ each, they reckon it good only for light land.

The product of a cow they value at 3*l.* The flocks of sheep eighty to two hundred; the profit 10*s.* a head. To an hundred acres of arable they allot six horses, use them five at length, do an acre a day; the depth they stir four or five inches; four shillings an acre the price of plowing.

The following are the particulars of some farms in this neighbourhood :

260 acres in all	4 men
100 grass	3 boys
160 arable	2 maids
£. 300 rent	3 labourers
15 horses	4 waggons
24 cows	4 carts
14 young cattle	6 ploughs.
100 sheep	

Another,

150 acres in all	1 man
60 grass	2 boys
90 arable	2 maids
£. 100 rent	2 labourers
9 horses	2 waggons
14 cows	3 carts
10 young cattle	2 ploughs.
50 sheep	

Another,

90 acres in all	80 arable
10 grass	£. 70 rent
	5 horses

5 horses	1 man
5 cows	1 boy
10 young cattle	1 labourer.

L A B O U R.

In harvest, 30 s. and board for the harvest.

In hay time, 1 s. and board.

In winter, 10 d. and beer.

Reaping, 2 s. 6 d. and board.

Mowing corn, 8 d. and ditto.

——— grass, 1 s.

Ditching, 6 d. to 8 d. eight yards.

Threshing wheat, 3 d. to 4 d.

——— barley, 2 d.

——— oats, 1 $\frac{1}{2}$ d.

——— pease, 2 d.

——— beans, 1 $\frac{1}{2}$ d.

First man's wages, 9 l. to 10 l.

Next ditto, 8 l.

Boy of ten or twelve years, 3 l.

Maids, 3 l.

Women *per* day in harvest, 6 d. and board.

In hay time, 6 d. and beer.

In winter, 5 d.

P R O V I S I O N S, &c.

Wheaten bread, 1 $\frac{3}{4}$ d.

Cheese, 3 d.

Butter, 7 d.

Beef, 3 d.

Mutton, 3 d.

Veal, 2 d.

X 3

Pork,

Pork, 4 *d.*

Candles, 7 *d.*

Soap, 7 *d.*

Labourer's house rent, 20 *s.* to 30 *s.*

----- firing, 30 *s.*

----- tools, 10 *s.*

Amount of a year's earnings, 15 *l.*

IMPLEMENTS, &c.

A waggon, 15 *l.* to 20 *l.*

A cart, 5 *l.* to 7 *l.*

A plough, 10 *s.*

A harrow, 20 *s.*

A scythe, 3 *s.* 6 *d.*

A spade, 3 *s.* 6 *d.* to 4 *s.*

Shoeing, 1 *s.* 4 *d.*

In the neighbourhood of *Bendsworth* the husbandry improves greatly, being carried on with more spirit than common. This is the agriculture of the *Vale of Evesham*.

The soil is chiefly clay, but much loam, and some that is light. Rents from 15 *s.* to 30 *s.* average 21 *s.* Farms rise from 40 *l.* to 1000 *l.* a year; but are in general large.

The principal courses are,

1. Fallow

3. Beans

2. Barley

4. Wheat.

And,

1. Turneps

3. Wheat

2. Barley

4. Oats; very bad.

And,

1. Turneps

3. Pease

2. Barley

4. Wheat.

Also,

- | | |
|----------------------|----------|
| 1. Fallow | 4. Wheat |
| 2. Barley | 5. Oats. |
| 3. Clover, two years | |

The average crops are very great.

Of wheat four quarters.

Of rye four, but little sown.

Of barley six.

Of oats eight.

Of pease twenty-five bushels.

For beans they plow once, and dung well, and set them in rows from fifteen to eighteen inches asunder, hand hoe them twice, which costs 4s. an acre each time; the average crop five quarters: The wheat after them is generally superior to that after a fallow.

For turneps they stir but twice, hoe them once; the value *per* acre from 30s. to 3*l*. Use them for sheep. Clover they use for feeding their horses in the inclosures; and also for the spring feed of lambs.

For potatoes they manure well with long dung, plow but once, dibble them in, in rows, one foot asunder; get three or four hundred bushels *per* acre; sow wheat after them.

They have neither marle or lime, nor do they want them, for the natural richness of their clays is very great, being of that sort that falls like lime with the winter's frosts. They constantly fold their sheep; stack their hay at home; and many of them chop their stubbles.

Good grass lets from 30s. to 40s. it is used both for fattening and dairying: One acre will carry a cow through the summer, or eight sheep. The breed of cattle is between the long and short horns; their oxen fat to about sixty score. The product of a cow they calculate at 5*l.* five gallons of milk about the average quantity *per* cow. To ten cows they keep about two sows; and eight the proper number for a dairy maid. The winter food is straw and hay, of the latter from fifteen hundred weight to a ton each. The calves suck six weeks. The summer joist 1*s.* 6*d.* a week. In winter they are kept in open farms in the farm yard, but in inclosed ones, in the fields.

Their hogs they fat so very high as to forty score, but twenty common.

The flocks of sheep rise from sixty to twelve hundred, the profit they reckon at 8*s.* or 9*s.* a head. The average fleece, in the inclosures 9*lb.* in the open fields 3 or 4*lb.*

In their tillage they reckon twelve horses necessary for an hundred acres of arable land; use five or six at length, and do an acre a day. The annual expence of a horse they calculate at 7*l.* The summer joist 1*s.* 6*d.* a week. They break up their stubbles for a fallow in *March*. The price of plowing *per* acre is 6*s.* and the depth two and a half or three inches; it is astonishing they can get such noble crops with

such

such plowing; but this seems to prove, that fertility of soil is the grand point, and that the authors, who have so generally prescribed very deep plowing as *absolutely* necessary in *all* soils, are strangely mistaken. It is much to be questioned whether one acre of wheat with two inches of plowing in this country, does not yield four times as much as such writers have gained with their more *philosophical* conduct; --- not, however, that I plead for shallow plowing.

The hire of a cart, three horses, and a driver, 5s. a day.

In the hiring and stocking of farms, their ideas speak a much more spirited husbandry than I have commonly met with. For the stocking a farm of 500 l. a year, consisting of five hundred acres, half grass and half arable, they calculate the following articles necessary.

Twenty-six horses, at 15 l.	£. 390
Twelve hundred sheep, -	1200
Thirty cows, - - - - -	240
Swine, - - - - -	10
Harness, - - - - -	35
Four waggons, one a broad wheel	
one, - - - - -	100
Two broad wheel carts, - -	24
Two narrow ditto, - - -	12
All other implements, - -	80
Rent, - - - - -	500
	2591
	Town

	£. 2591
Town charges, - - -	40
House - keeping, besides what comes from the farm, -	100
Furniture, - - - -	200
Five men, - - - -	40
Four boys, - - - -	12
Four labourers, - - - -	80
Three maids, - - - -	10
Seed,	
Seventy acres of wheat, -	100
Seventy acres of barley, -	45
Thirty-five acres of beans, -	28
Thirty-five acres of oats, -	17
Twenty acres of clover, -	8
	3271

Land sells at twenty-eight and thirty years purchase.

Poor rates very high, higher than the land tax, to 4 s. in the pound; in the villages no where lower than 2 s.

The employment of the poor women and children is chiefly with the gardeners, of whom (as at *Sandy*, in *Bedfordshire*) there are great numbers: Between three and four hundred acres of land in this neighbourhood are so employed, that let for 50 s. and 3 l. an acre: They carry their products around the country, to *Birmingham*, *Worcester*, *Tewksbury*, *Gloucester*, *Warwick*, *Coventry*, *Stow*, &c. and seeds to *Stafford*, *Litchfield*,
Lei-

Leicester, Nottingham, &c. asparagus to *Bath and Bristol.* Besides this employ, the poor knit caps and stockings, 2 *d.* to 6 *d.* a day. All drink tea.

Farmers have no distance to carry their corn; all is used at home.

Leases from fourteen to twenty-one years.

The following are particulars of farms in this neighbourhood.

200 acres all arable	1 man
£. 170 rent	2 boys
12 horses	2 maids
16 cows	8 labourers
5 young cattle	4 waggons
170 sheep	3 carts
	4 ploughs.

Another,

850 acres in all	1000 sheep
450 grass	8 men
400 arable	4 boys
£. 800 rent	5 maids
30 horses	10 labourers
40 cows	6 waggons
40 fatting beasts	8 carts
20 young cattle	10 ploughs.

Another,

70 acres in all	1 maid
50 arable	4 labourers
20 grass	3 waggons
£. 70 rent	2 carts
7 horses	2 ploughs.
180 sheep	

Another,

Another,

90 acres all ara-	1 man
ble	1 maid
£. 50 rent	1 boy
8 horses	2 labourers
10 cows	3 waggon
2 young cattle	2 carts
100 sheep	2 ploughs.

L A B O U R.

In harvest, 30s. and board for the harvest.

In hay time, 1s. 6d. and beer.

In winter, 1s. and beer.

Reaping, 5s. to 6s.

Mowing corn, 1s. 6d.

----- grass, 2s.

Hoeing turneps, 5s. 6d. to 7s.

----- beans, 6s. to 8s.

Ditching, 6d. to 9d.

Threshing wheat, 4d. per bushel.

----- barley, 2d.

----- oats, 1 $\frac{1}{2}$ d.

----- beans, 1 $\frac{1}{2}$ d.

Digging, 2l. 10s. or 3l.

Amount of a year's earnings, 18l.

First man's wages, 10l.

Next ditto, 7l. to 9l.

Boy of ten or twelve years, 2s. 6d. a week.

Dairy maids, 4l.

Other ditto, 2l. 10s. to 3l.

Women in harvest, 14s. and board.

In hay time, 7d.

Value of a man's board, washing, and lodging, 12l.

I M P L E M E N T S, &c.

- A waggon, 18 *l*.
 A cart, 6 *l*.
 A plough, 20 *s*.
 A harrow, 20 *s*. to 4 *l*.
 A roller, 20 *s*. to 40 *s*.
 A scythe, 4 *s*. 6 *d*.
 A spade, 3 *s*. 6 *d*.
 Shoeing, 1 *s*. 8 *d*.
 Cart-harness, *per* horse, 1 *l*. 6 *s*.

P R O V I S I O N S, &c.

- Bread — wheaten, 1 $\frac{1}{2}$ *d*.
 Cheese, 3 $\frac{1}{2}$ *d*.
 Butter, 8 *d*.
 Beef, 2 $\frac{1}{4}$ *d*.
 Mutton, 3 *d*.
 Veal, 3 *d*.
 Pork, 3 $\frac{1}{2}$ *d*.
 Milk, $\frac{1}{2}$ *d*. *per* pint.
 Potatoes, 8 *d*.
 Candles, 6 *d*.
 Soap, 6 *d*.
 Labourer's house rent, 10 *s*. to 15 *s*.
 ----- firing, 25 *s*.
 ----- tools, 2 *s*. 6 *d*.
 Coals, 15 *s*. a ton, laid in.

B U I L D I N G.

- Tiles, 18 *s*. *per* thousand.
 Oak timber, 1 *s*. 4 *d*. to 2 *s*.
 Ash ditto, 1 *s*. to 1 *s*. 4 *d*.

Elm,

Elm, 1 s.

Mason *per* day, 1 s. 6 d. and beer.

Carpenter, 1 s. 6 d. and ditto.

Thatcher, 1 s. 4 d. and beer.

Farm-houses, plaister and thatch ; a few brick and tile.

In the parish of *Bendsworth* are,

1500 acres	£. 1000 rent, (be-
14 farms	sides that of
80 horses	houses)
120 cows	£. 200 rates
1000 sheep	600 labourers.

The following experiments and remarks of Mr. *William Penny*, who keeps the Inn at *Bendsworth*, are much worthy of notice. He is very sensible and intelligent.

In the *planting* of wheat he made this trial : Upon a loamy soil, a mixture of clay and sand, he set a peck of wheat on the third of an acre, in rows, nine inches asunder, and six inches from grain to grain : The land had been well fallowed : The crop was neither hand hoed nor hand weeded : Product thirty-four pecks ; but there being a path across the field, wasted a fifth : Total, therefore forty pecks, or, *per* acre, thirty bushels. This is a very great product from so small a quantity of seed, and proves much in favour of the advocates for thinner seeding than common. The expence of planting was 3 s. or 9 s. *per* acre.

Mr.

Mr. *Penny* makes it a rule in the seeding his ground, always to change the soil, but not the seed: That is, upon clay to sow wheat that was raised upon sand, gravel, or light loam; and the contrary. Distance he reckons nothing; but his experiments on this point are not decisive, as *all* his own wheat seed comes from the *Vale of White Horse, Berkshire*.

His preparation of the seed is, to steep it in a brine first made strong enough to bear an egg, and then with half as much more salt added: In this he steeps it two hours. He finds it a remedy for the smut; as the strength of the brine throws up the unsound corn, such being always the lightest. He distinguishes the burnt grain and the smutty by this; the burnt is as long as the common grain, and black; the smut is black also, but perfectly globular, and puffs like a puff ball. After the steeping he dries it with lime.

He has more than once sown the skimmings of the steeping quite smutty, and had perfectly sound grain in return: This he attributes to the strength of the brine.

His barley seed he shifts from soil to soil, in the same manner as wheat.

The culture of barley here is excellent. They plow the land in *March*, (but this should be in *October*,) in *May* dung it, twenty load to an acre, twenty-eight bush-
els

els *per* load. In *June* plow it in. The land then lies till *September*, when it is plowed again, and arched up, and so lays for the winter. In *March* it is plowed down, one half, or two bushels *per* acre of seed being then turned in, and the other half, or two bushels more, harrowed in at top: This management yields seven quarters *per* acre on an average. It certainly is most excellent husbandry; and the circumstance of spreading the dung on the fallow, and mixing it well with the soil by the succeeding plowings, preferable, I apprehend, to laying it on in the winter before sowing, which also depends on the coming of sharp frosts.

Lucerne, Mr. *Penny* has cultivated, and with good success. He sowed two acres in drills in 1761, twelve inches asunder; the soil a sandy loam. It was hand hoed well for three or four years, and afterwards breast plowed twice a year. The hand hoeing cost 40 s. an acre; but the plowing only 5 s.

These two acres have kept twelve horses constantly in the stable from the beginning of *April* to the end of *September*, with only a seventh part of the hay they otherwise would have had: The keeping in this manner, Mr. *Penny*, (and his neighbours also,) value at 2 s. a week; or 24 s. a week for the two acres.

Twenty-

Twenty-six weeks at 24s. 31l. 4s.

Besides this, his ewes and lambs have been kept on it a month every spring, twenty at 6d. a week. (N. B. It is worth more than this at so critical a season, but our cultivator exaggerates nothing.)

	2	0
	—	—
£.	33	4
	—	—

Or, *per* acre, 16l. 12s.

It is now in very good heart, and having answered so greatly, Mr. Penny designs sowing a larger quantity. The profit is very noble, and proves sufficiently, that Lucerne is a most capital article in *British* agriculture, and greatly deserves to be brought into universal use. Nor is the public under a slight obligation to this useful husbandman, for attending so much to this and other matters of the same kind.

Perfuing the road to *Oxford*, I found, at *Moreton*, some variations that deserve minuting. The soil is chiefly a gravel; lets at an average at 20s. an acre. Farms rise from 50l. to 500l. a year, but in general are 2 or 300l.

Their courses in the common fields :

1. Fallow

3. Wheat

2. Pease

4. Barley.

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Y

And,

And,

- | | |
|-----------|------------|
| 1. Fallow | 3. Wheat |
| 2. Beans | 4. Barley. |

In the inclosures,

- | | |
|-------------------|-------------------|
| 1. Break up, Oats | 5. Oats |
| 2. Wheat | 6. Turneps |
| 3. Pease | 7. Oats and Gras- |
| 4. Wheat | ses. |

The average crops are,

Of wheat, three quarters and a half.

Of barley, five.

Of oats, five.

Of pease, two and a half.

Of beans, three.

They plow three times for turneps, hand hoe twice, and are worth, upon a medium, 30s. an acre.

Their flocks of sheep rise from one hundred to fourteen hundred; the profit they reckon at 7s. or 8s.

In their tillage they use four horses at length, and do an acre a day; eight or nine necessary for one hundred acres of arable land. Some farmers break up their stubbles for a fallow before winter, but mostly in spring. The price of plowing is 7s. 6d. an acre, and the depth four or five inches.

The following particulars of farms will shew the general œconomy of this country.

200 acres in all	£.200 rent
140 arable	12 horses
60 grass	16 cows
	400 sheep

400 sheep	2 maids
20 young cattle	2 boys
3 men	3 labourers.

Another,

570 acres in all	20 young cattle
450 arable	1100 sheep
120 grafs	5 men
£.530 rent	3 boys
40 horses	4 maids
30 cows	11 labourers.
10 fattening beasts	

Another,

460 acres in all	8 fattening beasts
410 arable	900 sheep
50 grafs	3 men
£.400 rent	3 boys
30 horses	3 maids
10 cows	10 labourers.

Another,

310 acres in all	10 fattening beasts
210 arable	800 sheep
100 grafs	3 men
£.320 rent	2 boys
17 horses	3 maids
30 cows	5 labourers.

LABOUR.

In harvest, 8s. and board.

In hay time, 1s. 6d. and beer.

In winter, 1s.

Reaping, 5s. to 6s.

Hoeing turneps, 5s.

Y 2

Thresh-

Threshing wheat, 4*d.*

----- barley, 2*d.*

----- oats, 1 $\frac{1}{2}$ *d.*

First man's wages, 7*l.* 10*s.*

Next ditto, 5*l.*

Boy of ten or twelve years, 2*l.* to 2*l.* 10*s.*

Dairy maids, 4*l.*

Other ditto, 3*l.*

Women *per* day in harvest, 1*s.*

In hay time, 6*d.*

PROVISIONS, &c.

Bread, 1 $\frac{1}{2}$ *d.*

Cheese, 3 $\frac{1}{2}$ *d.*

Butter, 7*d.*

Beef, 3 $\frac{1}{2}$ *d.*

Mutton, 3 $\frac{1}{2}$ *d.*

Veal, 2 $\frac{1}{2}$ *d.*

Pork, 4*d.*

Bacon, 8*d.*

Milk, $\frac{1}{3}$ *d.* *per* pint.

Potatoes, 3 $\frac{1}{2}$ *d.*

Candles, 6*d.*

Soap, 6*d.*

Labourer's house rent, 30*s.* to 40*s.*

----- firing, turf, none bought.

To *Chipping Norton* and its neighbourhood the land declines much: It is chiefly open fields, and does not lett more than from 5*s.* to 8*s.* an acre. Farms in general from 30*l.* to 100*l.* a year.

About

About *Enstone* land letts from 7*s.* to 15*s.*
Farms chiefly from 50*l.* to 200*l.* a year*.

* *Ditchley*, the seat of the Earl of *Litchfield*, is about a mile and half out of the road, and three miles from *Blenheim*; it is very well worth viewing. The front is handsome, and the disposition of the apartments renders them very convenient.

The hall is a handsome room, thirty-six feet square, the cieling is painted by *Kent*, inclosed in an oval of fret work; the walls cream coloured stucco, with lead coloured and gilt ornaments. The door cases finely carved. In the pannels are busts of

<i>Milton,</i>	<i>Homer,</i>	<i>Sappho,</i>
<i>Socrates,</i>	<i>Virgil,</i>	<i>Shakespear, and</i>
<i>Livy,</i>	<i>Cicero,</i>	<i>Dryden.</i>

basso relievos, scrolls, festoons, &c. surround them.

The Music-room is twenty-four by twenty-two. Here are, among some portraits,

Venetian School. Two courtezans. Great spirit and expression. (*N. B.* The same as at *Kiplin*, Mr. *Crowe's*.)

Rubens. His family. Very fine. The colours and spirit of the horse are great; but the expression of the wife and son nothing.

Wotton. Landscape. Not disagreeable, but this is not the *green* of nature.

The Dining-room, thirty-seven by twenty-two. Here we find

Holbein. *Henry VIII.* Exceedingly fine colouring and spirit; an attitude blustering as the monarch.

Vandyke. *Charles I.* and family. *Charles II.* on his knee. Nobly free, elegant, and spirited.

From hence to *Oxford* the country continues much the same, chiefly open; and a

Unknown. Duke of *Monmouth* and his mother.
A sweet attitude.

Jonson. *Philip* the II^d. The countenance expressive of a soul dark as *Philip's*.

Ditto. Sir *Henry Lee*.

Corn. Ketel. Sir *Christopher Hatton*.

In this room is a black marble slab of one piece, nine feet by four and a half.

The Damask Bed-chamber twenty-two by twenty-one.

Vandyke. Admiral *Lee*.

Jonson. The Queen of *Bohemia*.

In the drawing-room, twenty-four by twenty-one, the chimney-piece is of black and white marble, handsome, the cornice supported by ionic pillars. Here are

Lely. The countesses of *Rochester* and
Lindesay.

Ditto. Sir *Francis Harry Lee*.

Jonson. Sir *Harry Lee*.

The saloon, thirty-three by twenty-four. The most striking article in this room is an antique statue of the goddess of health, about two feet and a half high; nothing can be more sweetly elegant than the drapery, the attitude, and the purity of the head. The whole figure is in the chastest stile of the antique; the body finely seen through the drapery.

The green damask bed-chamber, twenty-four by twenty-two. The chimney-piece of white marble, polished; the frieze *cornucopia's* of fruit, &c. The ornaments above two corinthian pillars gilt, inclosing a landscape by *Wotton*, which is somewhat unnatural.

Unknown.

quarry of stone near the surface of the whole*.

I am, &c.

Unknown. Two pieces of ruins and rocks, Bright and glowing. The cascade fine.

The white dining-room, thirty-seven by twenty-two, highly ornamented. The cieling is in compartments of white and gold; the cornice and frieze richly executed in the same; the pannels, window frames, and picture ones of the same: The glasses very elegant, and fine slabs of *Siena* marble. Here are

Lely. Charles II. Dutches of *Cleveland*.

Kneller. The present Duke of *Grafton's* great grandfather, and Lady *Charlotte Fitzroy*.

From this room there is a passage to a small neat chapel, in which is an altar-piece, a dead *Christ*, a copy from *Poussin*.

The velvet bed-chamber, twenty-four by twenty-two. The bed and hangings of figured *Genoa* velvet. The chimney-piece of white marble highly polished; over it a ruin, very pleasing, by *Panini*.

The *Chinese* dressing-room, twenty-four by twenty-two. It is completely fitted up, and furnished in the taste of that country; richly ornamented with carving gilt; *Chinese* figures; picture and glass frames the same. The chimney-piece of white marble, polished. A slab of agate marble. The tapestry is fine. Two landscapes, but rather brilliant than natural.

The gardens are disposed with taste; the sloping banks scattered with wood, and hanging to the serpentine lake, with the rotunda, finely placed on a rising ground among the trees, is a very beautiful landscape.

* The first entertainment we reaped at *Oxford* was the viewing the collection of pictures left by

L E T T E R XXIII.

FROM *Oxford* I took the road to *London* by *Henley*; the soil various for several miles, consisting both of clay, sand, gravel, and loam. At *Benfington* it is also of several sorts, as gravel, sand, strong clay, and what they call a marne, that is, between chalk and clay. The open fields let from 11s. to 15s. per acre; inclosed from 20s. to 40s. Farms rise from 40*l.* to 1400*l.* a year.

the late general *Guise* to the University; but as they are not yet placed where they are to remain, I could not get a sight of all; most of them, however, I had the pleasure of seeing. Here follows a catalogue.

Viviano and *Ricci*. A piece of architecture rather large, adorned with many small figures. By no means pleasing.

Spagnaletto. Two heads (carricaturas) in one piece, smaller than life. Very striking and horrible.

Meriglio. A portrait of a *Spanish* nobleman, half length, after the life. Dark.

Unknown. Virgin and Child. Admirable drawing. A fine group, and excellent attitude.

Titian. Three ladies. Three antidotes to —.

Han. Carrache. A buffoon.

Unknown. St. *Sebastian*.

Nicolo dell' Abate. A picture in light and shadow, representing *Diana* and nymphs in the bath, changing *Acteon* into a stag. Very fine and correct drawing.

L. Car.

The courses are,

1. Fallow

2. Wheat

3. Beans

4. Barley.

Also,

1. Turneps

2. Barley

3. Wheat

4. Beans

5. Barley

6. Clover.

Likewise,

1. Turneps

2. Barley

3. Clover

4. Wheat

5. Turneps

6. Wheat.

L. Carracbe. The legs of a dead *Christ*. What a subject! But admirably foreshortened.

Guerchino. The prodigal son. Something in the stile of *Bassan*; but of most unmeaning expression.

Guido. Holy love conquering prophane love. An unmeaning subject, and an unpleasing picture.

Unknown. A woman turning her head and pointing to an open book. Fine.

Titian. A head with part of the shoulders. Unpleasing.

Pasqualini Romano. A picture with many figures, two feet high, representing *Solomon's Judgment*.

Andrea Mantegna. Our Saviour on his way to *Calvary*. Ridiculous expression. The figure behind our Saviour that of a grinning fool.

Unknown. The rape of the *Sabines*. A strange confusion of figures.

Dominichino. St. *Jerome* praying. A fine figure; colours strong.

Vandyke.

They plow three or four times for wheat, sow two bushels, the time extremely various, from *July* to *Candlemas*: Several farmers have of late years gained very fine crops from spring sown wheat. The average product they reckon at three quarters and an half. For barley they stir twice or thrice, sow two bushels and an half in *March*, and calculate four quarters the mean product. For oats they plow but once, sow the same quantity as of barley, and gain

-
- Vandyke.* A small sketch in light and shade, with many figures, representing a saint ready to suffer martyrdom. A nothing.
- Annib. Carrache.* A small octagonal picture on a black stone, representing our Saviour carried to the sepulchre. A strange group. Nothing pleasing.
- Tintoret.* *St. Laurence's* martyrdom. Strongly grouped, but in a dark stile.
- Ang. and Ghibbo Carrache.* Martyrdom of *St. Peter*. Very unpleasing.
- Poussin.* A large piece of architecture, with figures. Faded and unpleasing.
- Bourgeoisnone.* A battle. Dark and very indistinct, but spirited.
- Ricci.* *Apollo and Marsyas*. Very unpleasing. The colours dark, but expression strong.
- L. Carrache.* Our Saviour known by the two disciples in breaking the bread. Mere poverty of expression; and a formal group, but the colours strong.
- Dominichino.* *Sophonisba* dying of grief. The attitude and expression good.

Guido.

upon a medium six quarters and an half; twelve quarters have been known more than once from one acre.

They give but one earth for beans, sow two bushels, dibble them in by a line in rows twenty inches asunder; hand hoe them twice, and sometimes hand weed them. The setting is 4s. an acre; the hoeing 4s. a time; and the weeding 3s. The average product five quarters. They likewise plow but once for pease, dibble

Guido. Flight into *Ægypt*. Very fine: The attitudes and expression good; but no brilliancy.

Andrea Sacchi. The heads of *St. Andrew* and *St. Paul*. Strong expression.

Leonardo da Vinci. *St. Elizabeth* with *St. John* when a babe, musing on a cross made of reeds. Exceeding natural and fine: The boy incomparable.

Salviati. *Judith* holding *Holofernes'* head. Very fine: Strong colours and expression.

D. da Volterra. The descent from the cross. Great variety and strength of expression; but the colours gone.

Rubens. *Medusa's* head. Very spirited and striking expression.

Ani. Carrache. A holy family; the figures one foot high. Very fine; the attitudes and colours spirited.

Correggio. Our Saviour crowned with thorns. The figures a foot and an half high. Very fine. Colouring of a lively brilliancy.

them in in the same manner as beans, one bushel and three quarters *per* acre, hoe twice, and weed if necessary; the mean crop four quarters.

Rye they sow on one plowing on a wheat stubble, not for a crop of the grain, but to mow green for cattle, and also to feed sheep in the spring.

For turneps they plow from twice to five times, as it happens; hoe them once or twice, as necessary, and reckon the average

liancy. The lights strong but unnaturally diffused.

Imola. The last supper. Well grouped, but nothing in it striking.

Anib. Carrache. A boy's head, as large as life. Lively.

G. de Carrache. A landscape; a hare hunting. A nothing.

B. da Garofola. St. Catharine, a foot and a half high. A formal figure in the stile of *Albert Durer*.

Giuseppe d'Arpino. Adam and Eve driven out of Paradise. Prodigious fine attitudes. Eve's naked body very beautiful. The colouring good.

Leonardo da Vinci. The head of a woman smiling. Lively.

Bartolomeo. A child's head, smaller than the life. Ditto.

Correggio. The pale of an altar, with figures larger than the life. Vast expression in the old man; the plaits of the flesh fine, and the colours noble; but the general

value at 2*l.* 10*s.* an acre; use them for sheep.

Clover they sow with barley or oats; mow it once, and get two tons of hay at an average.

Tares they sow for mowing green: they feed horses in the stable with them, and tether bullocks on them; which fatten greatly.

Chalk is their principal manure; they lay forty-three horse cart loads on an acre,

general brilliancy gone. The figure of a woman to the right most unmeaning.

Ann. Carrache. The family of the *Carrack's* represented in a butcher's shop, and those celebrated painters in butchers dresses. *Annibal* is weighing some meat to a *Swiss* of the Cardinal of *Bologna's* guard. *Augustine* is shaking a nail, and trying if it holds fast, that he may hang on it a leg of mutton, which he holds in his left hand. *Gobbo* is lifting up a calf to hang it on a beam, and *Ludovico* stoops down killing a sheep. The mother of them is represented as a servant maid that comes to buy some meat. The likenesses are traditionally said to be wonderful. — This, surely, is the most striking instance of an odd and grotesque taste; to transmit ones self to posterity in the most odious of common characters. *Alexander* was solicitous to have the beauty of his person transmitted to future times, in the works of the

which cost 4*l*. They dig often twenty yards deep before they come to it: It is of an hard nature, but lasts good for twelve years: they find it answers best on cold clay soils.

Rags they have from *London* at 5*s*. 6*d*. the hundred weight; eight hundred are sufficient for an acre; they last for about three or four years, and are best on gravelly soils.

Malt-dust they also use; lay six or eight sacks on an acre, at 3*s*. 6*d*. a sack.

the best artists; what would he have thought of a painter that threw him into the attitude of killing a sheep? Here is, however, great strength and variety of expression in this phantastic picture.

Dominichino. A landscape. Dark and unpleasing, but the attitudes of the figures are very spirited.

Furino. A woman representing Simplicity, with a dove in her hand. Dark; nothing pleasing.

Badalocchi. The Good Samaritan. Very strong and spirited drawing; well fore-shortened; colours gone.

Ricci. Our Lady with her Babe; the figures about two feet high. A very fine attitude; the child as spirited as the subject will admit. The colouring was good, but almost gone.

Raphael. A youth's head smaller than the life. Very formal.

Titian. The Nativity. The colouring of this picture is exceedingly fine. The posture

They give 3*d.* a bushel for coal ashes at *Oxford*, and then have the expence of the carriage.

Good grafs letts from 40*s.* to 3*l.* It is chiefly applied to dairying: one acre will carry a cow through the summer. They manure the pastures well with dung and mould, and ditch-stuff, mixed together, and soap ashes.

The breed of cattle the long horned: the oxen fat to sixty score.

posture of the virgin incomparable, and the expression of the other figures great. The grouping excellent, and the light strongly and spiritedly diffused from the child.

Ditto. Another Nativity. Unpleasing colours. A strange group; and the expression of the old fellow over the child quite vulgar.

Anni. Carrache. Our Lady with her Babe in her arms, near as large as life, standing on clouds. The attitude of the virgin very fine; and the expression of her countenance sweetly amiable; the child fine, and the whole group picturesque.

Aug. Carrache. *Susannah* and the Elders. Not pleasing; her naked body is, however, thrown into a striking light, and very well drawn. The attitude of the old fellow very spirited, the drapery good, and the lights strong.

Cavedone. The Nativity. This picture is also attributed to *Zuccarelli*. The brilliancy

Hogs fat in common to thirty-score; Mr. *Sellwood*, in this neighbourhood, fatted one to fifty-seven score, which is certainly an astonishing weight.

They reckon the product of a cow at 7*l.* 7*s.* The winter food is hay, of which they eat an acre and half. Ten the proper number for a dairy-maid.

The flocks of sheep rise from an hundred to a thousand: the profit 20*s.* a head, with folding: Some farmers I conversed

is in his stile, and pleasing. The attitude of the shepherd kneeling, with the staff in his hand, is good; also that of the old man in the fore-ground. The little angels are executed in a lively manner. But there is a dimness of shade over the whole piece, as if unfinished or damaged.

Aug. Carrache. Head of our Saviour. Strong expression.

Schidone. Our Lady and her Babe. A sweet little group, in a good taste and spirit.

Bassan. *Christ* laid in the Sepulchre. Very capital expression of the exact kind; it is almost as minute as *Albert Durer*, especially that of the dead body.

Barocci. *Christ* shewn to the people by *Pilate*. Very fine. The group, attitudes, and colours pleasing.

Perugino. *Christ* appearing to *Mary Magdalen*. *Christ*'s expression that of a clown, and her's no better. The drapery, landscape, and colours, equally bad.

Raphael.

with valued the folding at 3*d.* a night *per* score; others at 4*d.* and 6*d.* Some asserted it was a cheaper manure at 8*d.* than many used in that country. They give them straw till lambing, then hay and turneps. The average fleece 6*lb.*

In their tillage they reckon five horses necessary for an hundred acres of arable clay land, and three for as much light land. In the first they use five in a plough, in the latter only two. In the light soils they do

Raphael. The infant *Jesus* and *St. John* embracing. Spirited. The countenance of him to the left good.

Ditto. Three heads in water colours. In a strong expressive stile of drawing; but unpleasing.

Carpacio. *St. Catharine.* The attitude natural; but the drapery in a bad taste, and the colours faint.

Andrea del Sarto. Our Lady with her Babe, and *St. John*: Her attitude fine, and her countenance exquisite: The boy spirited.

Holbein. A father and his two children praying. A nothing.

Raphael. The Nativity, containing eighteen figures, two feet high. Her posture neither natural nor graceful; and the colours are disagreeable: The group is pretty good, and the figure of the old man sitting a fine one. It is the mere rubbish of *names* to call this an "astonishing performance."

an acre and half a day, and in the clay three quarters of an acre, or an acre.

The annual expence of a horse they calculate at 10*l*.

Their stubbles for a fallow they do not break up till after spring sowing. In clay they stir three inches deep, in light soils four. The price of plowing 6*s*. an acre.

The hire of a cart, three horses, and driver, 7*s*. a day.

Great quantities of straw cut into chaff.

Paul Veronese. Our Lady with her Babe, St. Catharine, and St. Francis. Very fine and spirited attitudes; a pleasing group, but the colours nothing. The attention of the old man good.

Andrea del Sarto. Christ coming out of the Temple.

"Group nods at group, each figure has its brother,
"And half the picture just reflects the other."

Dominichino. A Mistress and her Maid. A nothing. But it is *called* one of the best works of this great master.

Parmegiano. Our Lady with her Babe. Exceedingly fine, graceful, and pleasing; the colours brilliant, and the head of the old man in a great stile.

Dominichino. Cupid drawn by two doves; spirited, and somewhat pleasing.

Carlo Cignani. A copy of *Correggio's* Night. The lights strong and spirited. The figure in obscura, leaning on a spear, forms a fine attitude. The group good.

Tintoret.

In the hiring and stocking of farms, they calculate that 300*l.* is sufficient for one hundred pounds a year.

Land sells at thirty years purchase.

Tythes generally compounded ; 3*s.* an acre round.

Poor rates 2*s.* in the pound ; the employment chiefly pilfering and idleness ; but all drink tea, and many have their hot rolls with it.

Tintoret. *Diana* in the bath, changing *Acteon* into a stag. Very fine drawing of the naked. Several of the figures are beautiful, and the attitudes spirited.

Ditto. The communion of the Apostles. Very dark, and the lights strongly and partially thrown, but the attitudes have spirit.

Gob. Carrache. *St. John* preaching in the desert. The landscape rich and fine, and the attitudes of the figures nobly spirited.

Salvator Rosa. *Eriethonius* delivered to the Nymphs for education. Great spirit in the attitudes ; but it hangs in so bad a light that one can see but little of it.

Dominichino. *Moses* delivering the daughters from the snares of the shepherds. The postures and attention of the figures fine. The landscape good.

Ditto. A landscape. Some fishermen ; and women washing linnen. Very dark ; the lights partially and strangely thrown.

Fernandos. A youth playing on the guittar. Great expression of attention.

The following are the particulars of several farms in this neighbourhood :

2000 acres, all	17 men
arable	5 boys
£.1450 rent	5 maids
40 horses(worth	20 labourers
25 <i>l.</i> each)	10 waggons
20 cows	10 carts
8 young cattle	10 ploughs.
700 sheep	

Titian. Christ tempted in the Desert. An insipid figure, and the colours quite gone.

Dominichino. Two Cherubs. Nothing.

Guerchino. A St. John's head, with a lamb. Very dark, but has some spirit.

Schiavone. Marfyas and Apollo, with Midas. Very unpleasing.

Unknown. Cleopatra. Fine and spirited.

Anni. Carrache. Copy of Correggio's Cupid. The drawing, spirit, and relief of the figure fine.

Ditto. The laying in the Sepulchre; an octogon picture; strongly expressive.

Ditto. St. Francis in a vision. Wonderfully fine; exceedingly spirited, lively, and brilliant. The attitudes are surprizingly great; and the life in every figure striking. The relief of the right hand very strong.

Gob. de Carrache. A landscape; the waterfalls good; and the trees natural.

Titian. A Venus and Cupid, as large as life. Astonishingly fine. The whole body most exquisitely painted. The attitude

Another,

600 acres in all	4 men
50 grafs	3 boys
550 arable	3 maids
£.525 rent	7 labourers
16 horses	4 waggons
20 cows	6 carts
500 sheep	5 ploughs.

tude easy, graceful, and amazingly pleasing. The roundness and turn of the limbs in the relief of life itself; the turn of the head and neck elegantly graceful. The face wonderfully beautiful; the colouring very fine; and, in a word, the whole figure exquisitely beautiful and enticing.

Titian. Portrait of the woman that was his model for the famous *Venus at Florence*.
Very beautiful.

Guido. A choir of Angels. A nothing,
P. da Cortona. Sketch of a cieling.

A ditto.

Lud. Carrache. A half length as large as life.
Very fine, lively, and spirited.

Giorgione. Half length of a woman as large as life. Very disagreeable.

Titian. Our Lady with her Babe and St.
John. Very fine attitude and drapery.

Guido. Dying *Magdalen* and Cherubs. Incomparably fine in expression and colouring.

Julio Romano. An Emperor on horseback. Very strong and spirited.

Vandyke. King *Charles* the First's white horse.
Very lively.

Another,

460 acres in all	4 men
50 grafs	2 boys
410 arable	3 maids
£.400 rent	6 labourers
13 horfes	4 waggons
20 cows	4 carts
5 young cattle	4 ploughs.
200 ſheep	

Borgognone. The Slaughter of the Innocents. Wild, but spirited; the colours gone.

Florentine School. Constantine. There are many figures in this piece, and spirited.

Unknown. A ſmall piece containing ſeveral figures, a group among rocks. Moſt ſpiritedly touched. The lights, drapery, and attitudes great; ſomething like *Salvator*.

Ditto. Two figures, one of them fiſhing. Spirited.

Ditto. A Maſter and his Scholar. Exceeding fine. The airs of the heads great, and the colouring fine. A little in the ſtile of *Rembrandt*.

Ditto. *Diana.* An unfiniſhed ſketch; the drawing of the naked figures fine.

Ditto. *Suſannah* and the Elders; ſmall. Her figure good, but the expreſſion of her countenance fooliſh.

Ditto. A woman bathing, and a man ſtealing her cloaths. Her figure well done.

Ditto. A Holy Family; a ſmall drawing. Exceeding fine attitudes and expreſſion.

Ditto. The Adoration of the Shepherds; a drawing. Exceedingly fine.

Unknown.

Another,

300 acres in all	4 men
30 grafs	2 maids
270 arable	10 labourers
£.200 rent	6 waggons
14 horfes	6 carts
21 cows	8 ploughs.
200 ſheep	

Unknown. A Nativity; the Deity in the clouds.
The light on the Virgin's countenance good.

Ditto. A Virgin and Child; ſmall. Good colouring and attitude.

Correggio. *Chriſt* crowned with thorns. Very fine.

Michael Angelo delle Battaglie. Two ſmall pieces, the one repreſenting a mountebank drawing a tooth; the other many people playing at bowls. Good. The mountebank one, well coloured.

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In the Hall of *Chriſt's-church*, among many others, the following portraits will ſtrike you moſt.

Morley, Biſhop of *Wincheſter*. Good.

Trevor, Biſhop of *Durham*. By *Hudſon*. Very fine drapery.

Robinson, Primate of *Ireland*. Very ſpirited.

In an old Chapter-houſe, two portraits, very expreſſive and ſpirited. They are thought to be *Frederick*, Duke of *Saxony*, and *Philip*, Archduke of *Auſtria*.

The *Radcliff* Library is a beautiful building: The ruſtics, the double corinthian pillars, the cornice, and balluſtrade; all unite to form one complete whole, admirably proportioned, and of

Another,

60 acres in all	5 cows
5 grafs	1 boy
55 arable	1 labourer
£.46 rent	2 carts
6 horses	1 plough.

the happiest unity of effect; and this without any termination: The conclusion in the ballustrade would have been one of a most elegant simplicity; --- but the dome rather hurts the general effect: besides, it is not equally beautiful with the rest of the building; its being ribbed too much divides the attention of the spectator, and the pediments around, which support the urns, are heavy.

The inside is a circular domed room, of forty-eight feet diameter, and sixty high. The dome, the upper and lower cornices, and the surrounding arches, are light and elegant, but the cross work of compartments somewhat break the effect; nor are the ionic pillars at bottom well proportioned to the room; they are too small, and without effect.

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In the Picture-Gallery are many pieces that are very capital. Those which pleased me most are the following.

Holbein. Sir Thomas Bodley. Very fine.

Unknown. King Alfred. Good.

William of Wickham. Very spirited.

William Wainfleet, Bishop of Winchester. Good.

Holbein. Sir Thomas Pope. A most noble portrait; the face and hands admirable, and the drapery good.

Unknown.

L A B O U R.

In harvest, 40s. for a month, and board.

In hay time, 1s. a day, and beer.

In winter, 1s. and beer.

Reaping wheat, 6s.

----- beans, 4s.

Mowing barley, 1s. 2d.

----- oats, 1s. 2d.

----- grafs, 1s. 8d.

Hoeing turneps, 5s.

Unknown. Henry IV. of France on horseback.

Lively and spirited.

Richard Wightwick. Fine.

A statue of *William*, Earl of *Pembroke*. A very noble and spirited attitude.

Ditto of the *Venus de Medicis*. Pleasing.

Apollo.

Duke of *Marlborough*.

B U S T S.

Tully. *Aristides.* *Zeno.* *Phocion.*

Vandyke. *Franciscus Junius*; a sketch: Exceedingly, fine, free, and spirited.

Kneller. Lord *Crew*, Bishop of *Durham*. Good.

Unknown. *Martin Luther*. A true polemical countenance.

Lely. Sir *Joseph*. Free and easy.

Williams. Dr. *King*. Spirited.

Richardson. *Prior*. Exceeding good.

Gibson. *Locke*. Good.

Spagnoletti. *Duns Scotus*. Wonderfully spirited.

Unknown. Sir *Richard Tomlins*. Very good.

Tycho Brahe. Ditto.

Gibson, Dr. *Flamsteed*. Spirited.

Sebastian

Hoeing beans, 4s.

Ditching, 6d. a perch.

Threshing wheat, 2s. a quarter.

----- barley, 1s.

----- oats, 10d.

----- beans, 10d.

Amount of a year's earnings, 22l.

First man's wages, 10l. 10s.

Next ditto, 8l.

Boy of ten or twelve years, 1l. 15s. to 2l.

Dairy maids, 3l. 10s.

Other ditto, 2l. to 2l. 10s.

Sebastian Bourdon. God's covenant with *Noah*. Disagreeable colouring, and a strange group.

Schalcken. The seven Vices on copper; Pride, Lust, Sloth, Drunkenness, Revenge, Avarice, and Envy. Exceedingly strong and spirited.

Jordaens. *Christ's* appearance to his Disciples after his resurrection. Very fine.

Ramsay. His present Majesty. Excellent drapery, and a very pleasing attitude.

Unknown. Fruit piece. Good.

A mathematical piece. Fine.

Frank Hall. A *Dutch* gardener. Very spirited.

Willarts. A storm. Strong and minute expression. Very fine.

Jordaens. *Moses* striking the Rock. Wonderfully fine. The back of the figure to the left noble.---The child with it's finger in the mouth great; but the grouping strange; and *Moses* totally devoid of expression.

Willarts.

Women *per* day in hay time, 6*d.* and beer.
 Picking stones in winter, 6*d.* to 1*s.* 6*d.* a
 load of twenty bushels.
 Value of a man's board, washing, and lodg-
 ing, 10*l.*

I M P L E M E N T S, &c.

A waggon, 24*l.*

A cart, 8*l.* 8*s.*

A plough, 5*l.*

A harrow, 30*s.*

Willarts. A Dutch fish-market. Amazingly
 fine. The figures are numerous, and
 the finishing very high.

Unknown. St. Paul. Good.

Bardwell. Thomas Fermor, Earl of Pomfret, and
 his wife : A capital piece of vulgarity.

Kneller. Addison. Good.

Unknown. Chaucer. Good. Minute finishing.

Vandyke. The great Earl of Strafford. Mid-
 dling ; but the expression is not weak.

Schroder. Charles XII. A noble picture. Great
 strength and spirit.

Unknown. The late King of Prussia. The
 figure of a vulgar clown.

Sir Henry Saville. The hands and
 face exceedingly fine ; and the minute
 imitation of the mat astonishing.

Van Trump. Very good and spirited ;
 the attitude excellent.

Kneller. Dr. Wallis. The hands and face in-
 comparably fine.

Vandyke. Sir Kenelm Digby. Exceeding fine.

Unknown. The Earl of Kildare. Good.

Unknown.

A roller, 3*l.* to 6*l.*

A scythe, 3*s.* 6*d.*

A spade, 3*s.*

Laying a share and coulter, 8*d.* to 1*s.*

Shoeing, 1*s.* 8*d.*

P R O V I S I O N S, &c.

Wheaten bread, best, 1¼*d.*

Cheese, 4*d.*

Butter, 6*d.* whey.

Beef, 3*d.*

Unknown. The Earl of *Pembroke*. Very fine.

Archbishop *Cranmer*. Good.

Sir *Thomas Sackville*, Earl of *Dorset*.

Very fine.

Lady *Betty Paulett*. Great finishing.

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Among the *Pomfret* Statues, the following I remarked particularly :

Statue of a *Grecian* Lady. A hugeous piece of immensity.

Ditto of *Archimedes*. Fine.

Ditto of *Minerva*. The left thigh and leg well seen through the drapery.

Ditto of *Cicero*. Drapery very fine ; the head spirited, but the attitude of the right arm mean.

Statue of a *Grecian* Lady. Very fine.

Ditto of *Sabina*. Attitude and fold of the right arm good ; but the drapery somewhat stiff.

A *Venus de Medicis*. The neck and right arm admirable ; also the antique part of the left. All that is antique of this statue is fine.

Statue

Mutton, $3\frac{1}{2}d.$

Veal, $3d.$

Pork, $4d.$

Milk, $\frac{1}{2}d.$ per pint.

Potatoes, $6d.$

Candles, $7d.$

Soap, $7d.$

Labourer's house rent, $30s.$

----- firing, $20s.$ to $30s.$

----- tools, $2s. 6d.$

Statue of *Minerva*. Drapery good; finely tucked under the left arm.

A *Venus* cloathed. Exquisite; the wet drapery displays the naked through it in the justest stile. The form of her body admirable.

Statue of *Clio* sitting. Turn of the head and neck fine; and the attitude good.

Statue of a young *Dacian*: Perhaps *Paris*. It is of great antiquity. Drapery good.

Statue of *Antinoüs*. Disproportion itself, but owing, I suppose, to the joinings, or designed for an elevated situation.

A *Grecian* Lady. The display of the left thigh and leg through the drapery fine.

Statue of *Jupiter* and *Leda*. Much defaced; but the left leg is well seen through the drapery, and the turn of her right thigh is good; likewise the remains of a fine attitude.

Statue of *Scipio Africanus*. Drapery bold, and the posture of the hand and arm fine.

A trunk of a woman. Good.

A boy with his finger in his mouth. A nothing.
Statue

BUILDING.

Bricks, 18*s.* *per* thousand.

Tiles, 18*s.*

Oak timber, 2*s.*

Ash, 1*s.* 3*d.*

Elm, 10*d.* to 1*s.* 2*d.*

Mason *per* day, 20*d.*

Carpenter, 20*d.*

Thatcher, 1*s.* 6*d.* and beer.

Farm-houses, of brick and stone, and tile.

Statue of *Jupiter* sitting. Heavy.

Ditto of a woman. Her form seen through the drapery is good.

The trunk of a woman. The right thigh and leg is pretty well seen through the drapery.

Germanicus's tomb. Spirited reliefs.

Statue of a *Roman* Consul. The posture of the right arm unnatural.

Ditto of a woman. Good.

Ditto of *Flora*. A beautiful figure and drapery.

Ditto of *Hercules*. Indifferent.

Hymen. The attitude fine.

Statue of *Venus* half naked. Her body very fine; the drapery slipping off it, and the turn of her left thigh and leg striking.

Statue of *Melpomene* sitting. A very expressive attitude, fine arm, and noble drapery.

A *Grecian* Lady. Bad drapery.

Statue of *Camilla*. Light drapery.

Ditto of a *Grecian* Philosopher. Middling.

Statue of *Caius Marius*. Very fine expression; and the posture of the right hand and arm very natural.

Statue

In the parish of *Benfington* are,

4500 acres	100 horses
8 farms	100 cows
150 acres of	1500 sheep
common	£.1800 rent.
60 labourers	

I forgot to tell you, that they cultivate sainfoine hereabouts, on the light chalky soils: They sow a sack an acre: It lasts good for fifteen or sixteen years. It is always

Statue of *Bacchus* naked. The turn of the body incomparable; the attitude and spirit of the figure noble; alive.

Statue of *Julia*. Disgusting.

The trunk of a woman sitting. Remains of a good statue, but sadly defaced.

A naked trunk of a man. Very good; the back excellent.

A trunk of a woman. Middling.

Statue of *Hercules* choaking a lion. Very great expression; the posture of the thigh against the rock great; the whole fine.

Trunk of a woman sitting. Good.

Boys embracing. Ditto.

Bust of a young man. Ditto.

Ditto of a *Diana*. Ditto.

Ditto of a Philosopher. Ditto.

Ditto of *Niobe*. Turn of the head good.

Ditto of *Venus de Medicis*. Good.

In the Repository of the *Arundelian* Marbles, is at present a small collection of Bronzes, &c. lately left to the University; the following are the principal:

Marcus Aurelius. Good.

Mercury.

Bacchus.

mown once every year; yielding, on an average, from fifty *cwt.* to three tons *per* acre: The second crop is fed off with lambs, after they are taken from the ewes: When it is broken up it is for turneps.

Passing *Bensington* four or five miles, land, I found, lett at from 12*s.* to 25*s.* an acre; and farms from 50*l.* to 200*l.* a year.

About *Henley on Thames* the soil is gravelly chalk, light loams, and clay. Letts from 10*s.* to 20*s.* an acre; average 17*s.*

Farms from 40*l.* to 100*l.* a year.

Bacchus.

Noah.

Moses.

Socrates.

Aaron.

King *David.* Good drapery.

Apollo.

Ditto.

A boar.

Plato.

David and *Goliath.*

Duke of *Marlborough.*

Hercules and *Antæus.*

Hercules and *Hydra.*

Venus. Good.

The torturing of a Bishop in the Inquisition.

A curious stroke.

Venus in drapery.

Apollo.

A Sibyl.

Cupid on a dolphin.

Hercules and Centaur.

A dragon.

Their courses,

- | | |
|------------|-----------|
| 1. Turneps | 5. Barley |
| 2. Barley | 6. Pease |
| 3. Clover | 7. Wheat. |
| 4. Wheat | |

And,

- | | |
|-----------|--------------------|
| 1. Fallow | 3. Barley |
| 2. Wheat | 4. Pease, or Oats. |

The average crops are,

Of wheat, three quarters.

Of barley, three.

Of oats, three.

Turneps they hoe once, and reckon the average value at 3*l*.

The product of a cow they calculate at 6*l*.

The chief manure is chalk; they lay fifteen three-horse cart loads *per* acre, which

A dragon.

A *Cæsar's* head in clay. Good.

Sir *Isaac Newton*.

Miltiades. A relief in stone: Very antique.

You will observe, that I have given them as they stand, but in strange confusion, of *Moses* and *Socrates*, King *David* and *Plato*, &c. I should not have inserted this last, had *any* other been extant for the use of spectators; for the collection is but so, so.

In the *Bodleian* Library, among many other pictures, I remarked these:

Mr. *Bowles*. The best among the librarians.

Sir *Kenelm Digby*. Good.

Sir *Thomas More*; by his niece. Very good.

Erasmus, by *Holbein*. Exceeding fine.

The Queen of *Bobemia*. Very lively and spirited.

costs 6 *d.* a load. Flocks of sheep one hundred to one hundred and fifty.

In their tillage they reckon six horses necessary for the management of fifty acres of arable land. They use four in a plough, and do an acre a day; the price from 5*s.* to 7*s.* 6*d.*

Poor rates 1*s.* 6*d.* in the pound.

The following are particulars of farms.

60 acres in all	15 sheep
40 arable	5 young cattle
20 grafs	3 men
£.50 rent	2 boys
8 horses	1 maid
6 cows	2 labourers.

Another,

100 acres in all	2 fatting beasts
70 arable	30 sheep
30 grafs	2 men
£.84 rent	1 boy
8 horses	1 maid
10 cows	2 labourers.
5 young cattle	

Another,

40 acres in all	5 horses
10 grafs	4 cows
30 arable	2 young cattle
£.36 rent	1 boy.

L A B O U R.

In harvest, 2*s.* and beer.

In hay time, 1*s.* 6*d.* and ditto.

In winter, 1*s.* and ditto.

Reap-

Reaping, 5s. to 10s.
 Mowing barley, 1s. to 1s. 6d.
 ——— oats, 1s. 3d.
 ——— grass, 1s. 6d.
 Hoeing turneps, 5s.
 Ditching, 6d. a perch.
 Women *per* day in harvest, 1s. and beer.
 In hay time, 6d. and beer.
 First man's wages, 8l.
 Next ditto, 5l. to 6l.
 Boy of ten or twelve years, 2l.
 Dairy maids, 4l.
 Other ditto, 3l.

PROVISIONS, &c.

Wheaten bread, 1d.
 Cheefe, 4d.
 Butter, 7d.
 Beef, 3½d.
 Mutton, 3½d.
 Veal, 3½d.
 Pork, 4d.
 Bacon, 6½d.
 Candles, 7d.
 Soap, 7d.
 Labourer's house rent, 40s. to 50s.
 ----- firing, 40s.
 ----- tools, 7s. 6d. to 10s.

Between *Henley* and *Maidenhead* land
 letts from 7s. 6d. to 20s. an acre. Farms
 rise from 40l. to 100l. a year.

About the latter town the soil is either
 clay, or a good loam, and letts at 20s. an
 A a 2 acre

acre on an average. Farms from 50 *l.* to 500 *l.* a year. A common course here,

1. Fallow

4. Pease

2. Wheat

5. Wheat

3. Barley

6. Barley.

Very little fallowing; they run often eight or ten crops to a fallow. The average product,

Of wheat, three quarters and a half.

Of barley, four.

Of oats, five.

Of pease, three and a half.

Their turneps they hoe once or twice, and reckon the average value at 45 *s.*

The product of a cow they calculate at 7 *l.* 10 *s.*

The flocks of sheep rise to five hundred.

They use four horses in a plough, and do an acre, or an acre and half a day. The price 5 *s.* and depth about five inches.

The employment of the poor women and children is a little spinning, but much lace making, at which the women earn 10 *d.* or 1 *s.* a day; girls from 4 *d.* to 6 *d.*

The following particulars of farms in this neighbourhood will shew the general economy of it.

420 acres in all	4 men
360 arable	3 boys
60 grass	1 maid
£. 400 rent	8 labourers
18 horses	3 waggons
2 cows	3 carts
400 sheep	3 ploughs.

Another,

300 acres in all	200 sheep
250 arable	2 men
50 grafs	2 maids
£. 280 rent	6 labourers
13 horses	3 waggons
8 cows	3 carts
4 young cattle	3 ploughs.

Another,

200 acres in all	5 fatting beasts
40 grafs	50 sheep
160 arable	1 man
£. 200 rent	2 boys
10 horses	1 maid
5 cows	6 labourers.

Another,

100 acres in all	3 young cattle
20 grafs	1 boy
80 arable	2 labourers
£. 95 rent	2 carts
6 horses	2 ploughs.
4 cows	

LABOUR.

In harvest, 1 s. 6 d. and board.

In hay time, 1 s. 6 d. and beer.

In winter, 1 s. and beer.

Reaping, 6 s. 6 d. to 7 s.

Mowing barley, 1 s.

----- ditto, and cocking, 2 s.

----- oats, ditto.

----- grafs, 1 s. 6 d. to 2 s.

A a 3

Cutting

Cutting pease, 2 s. 6 d.
 Hoeing turneps, 5 s.
 Ditching, 4 d.
 First man, 7 l. 7 s.
 Second ditto, 5 l.
 Boy of ten or twelve years, 40 s.
 Dairy maids, 4 l.
 Other ditto, 3 l. to 3 l. 10 s.
 Women *per* day in harvest, 1 s. and beer.
 In hay time, 8 d.
 In winter, 6 d.

PROVISIONS, &c.

Bread, wheaten, 9 lb. 11 d.
 Cheese, 4 $\frac{1}{2}$ d.
 Butter, 7 d.
 Beef, 3 $\frac{1}{2}$ d.
 Mutton, 3 $\frac{1}{2}$ d.
 Veal, 4 d.
 Pork, 4 d.
 Bacon, 6 $\frac{1}{2}$ d.
 Milk, $\frac{1}{2}$ d. *per* pint.
 Potatoes, 6 d.
 Candles, 7 d.
 Labourer's house rent, 40 s. to 3 l.
 ——— firing, 2 l. 10 s.
 ——— tools, 5 s.

About Colnbrook and Salt-hill land letts
 on an average at 20 s. an acre; farms from
 40 l. to 100 l. a year.

At

At *Harmondsworth* the soil is gravel and loam; the rent 20 s. Farms from 40 l. to 200 l. a year. The average of crops,

Of wheat, two quarters and a half.

Of barley, four.

Of beans, four and a half, set in rows and hoed.

Of pease, two.

Turneps they hoe once, reckon the average value at 40 s. an acre.

Good grass lets at 30 s.; an acre will summer feed a cow. The product of one they calculate at 6 l. 10 s.

They are attentive to the enriching their lands by manure from *London*, and also fold all their sheep, the profit *per* head of which animal they calculate at 12 s.

In their tillage they use four horses in a plough, do an acre and half a day, stirring about four inches deep. The price 5 s. 6 d. an acre.

Fallows are scarcely known; they keep the land in good heart, and always crop.

The following is a common course here:

- | | |
|------------|------------|
| 1. Turneps | 5. Pease |
| 2. Barley | 6. Wheat |
| 3. Beans | 7. Barley. |
| 4. Wheat | |

The following particulars of farms will explain the general œconomy.

100 acres, all arable	£. 90 rent	8 horses	6 cows
	A a 4		

6 cows	1 boy
100 sheep	1 maid
1 man	3 labourers.

Another,

160 acres in all	80 sheep
30 grafs	2 men
130 arable	2 boys
£. 150 rent	2 maids
10 cows	5 labourers.
5 young cattle	

Another,

80 acres in all	30 sheep
10 grafs	1 man
70 arable	1 boy
£. 80 rent	1 maid
5 cows	2 labourers.

Another,

40 acres in all	5 cows
5 grafs	20 sheep
35 arable	1 boy.
£. 45 rent	

L A B O U R, &c.

In harvest, 2 s. and beer.

In hay time, 1 s. 4 d. and beer.

In winter, 1 s. and ditto.

Reaping wheat, 6 s. to 10 s.

Mowing barley, 1 s. to 2 s.

——— pease, 2 s.

——— grafs, 2 s.

Ditching, 4 d. to 6 d.

Hoeing turneps, 5 s.

First

First man's wages, 9 *l.* to 10 *l.*
 Second ditto, 7 *l.*
 Boy of ten or twelve years, 3 *l.*
 Maids, 3 *l.* to 3 *l.* 10 *s.*
 Women *per* day in harvest, 1 *s.* and board.
 In hay time, 8 *d.* and beer.

P R O V I S I O N S, &c.

Bread, 1 $\frac{1}{2}$ *d.*
 Cheese, 4 *d.*
 Butter, 7 *d.*
 Beef, 3 $\frac{1}{2}$ *d.*
 Mutton, 3 $\frac{1}{2}$ *d.*
 Pork, 4 *d.*
 Veal, 4 *d.*
 Bacon, 6 *d.*
 Milk, $\frac{1}{2}$ *d.* *per* pint.
 Potatoes, 4 *d.*
 Candles, 7 *d.*
 Soap, 6 $\frac{1}{2}$ *d.*
 Labourer's house rent, 3 *l.* to 4 *l.* 10 *s.*
 ----- firing, — turf, and labour.
 ----- tools, 7 *s.* 6 *d.*

When I came among the gardens at *HammerSmith* I repeated my enquiries among the gardeners, that I might gain some insight in that perfection of culture.

Good nursery land lets there from 2 *l.* to 4 *l.* in general, and to 6 *l.* if walled. The nurseries rise from five to fifty acres. One of twenty acres will employ from eight to ten hands constantly, at 10 *s.* 6 *d.* a week in summer,

summer, and 9s. in winter. They never use any dung, reckoning it poison.

The kitchen gardens lett, on an average, at 3l. an acre: One of twenty acres will employ all the year four men if plowed; and if dug eight, at 10s. 6d. a week the year round. Likewise four women in winter, and twenty in summer, at 5s. a week the year round.

Their carrots they grow on stiff as well as light land; hoe them three times with a five inch hoe; costs 10s. a hoeing *per* acre.

Parsnips they hoe twice, to the distance of fourteen inches; costs 10s. a hoeing. Of this root the product is very seldom so large as of carrots.

Onions they hoe three times at the expence of 4l. an acre.

Turneps they hoe twice with seven inch hoes. (N. B. They do not want them to grow to a large size.) Costs 10s. the two hoeings.

Potatoes they hoe to fourteen inches every way, at twice, which costs 3s. 6d. a time.

The white *Dutch* cabbage they reckon the largest, but frosts will kill it. *Quere*, therefore, why not cultivate in the field, to come in before the other sorts are ready, for a succession all winter.

At *Kensington* I came again among some farmers. Their soil is various, clay, sand, and gravel; letts in farms at 2l. an acre, on
an

an average. Farms from 50 *l.* to 400 *l.* a year. Their courses are extremely various; among others they use the following. — Scarce any following.

- | | |
|---|----------------|
| 1. Pease, for market, got off time enough for | 3. Wheat |
| | 4. Horse-beans |
| | 5. Wheat. |
| 2. Turneps | |

And,

- | | |
|---|----------------|
| 1. Beans, for market, off time enough for | 3. Wheat |
| | 4. Horse-beans |
| | 5. Wheat. |
| 2. Turneps | |

Also,

- | | |
|--|----------------|
| 1. Pease or Beans, for market, off in time for | 3. Wheat |
| | 4. Tares |
| | 5. Horse-beans |
| 2. Turneps | 6. Wheat. |

Another,

- | | |
|-----------------------------|----------------|
| 1. Pease or Beans as before | 4. Oats |
| | 5. Horse-beans |
| 2. Turneps | 6. Wheat. |
| 3. Wheat | |

Another,

- | | |
|--------------------|-------------------|
| 1. Pease as before | 5. Barley |
| 2. Turneps | 6. Clover and ray |
| 3. Tares | grafs for two |
| 4. Potatoes | years. |

They plow three times for wheat, sow two bushels and a peck, and reap six quarters. For barley they stir twice, and gain eight quarters. For beans they also give but

but one plowing, dibble them in in rows, hand hoe them thoroughly, and gain six quarters. For turneps they plow once or twice, hoe them twice, at the expence of 5 s. an acre each hoeing, and reckon the value at 6 l. 10 s. or 7 l. on the ground.

For potatoes they dung well and plow; set them in drills one foot asunder, and the fetts six inches from each other, hoe them twice and hand weed them: The average value 15 l. an acre as they grow.

Their manure all comes from *London*, chiefly horse dung, costs 1 s. a four horse cart load, and a pint of beer. No coal ashes.

L A B O U R, &c.

In harvest, 12 s. a week, and beer.

In hay time, 9 s. and beer.

In winter, 9 s.

Average of the whole year, 10 s. 6 d.

Reaping wheat, from 10 s. to 20 s.

Mowing corn to bind and shock, 3 s.

----- grass, 3 s. to 5 s.

Hoeing turneps, 5 s.

----- beans, 7 s.

First man's wages, 10 l. to 10 l. 10 s.

Next ditto, 7 l. to 7 l. 7 s.

Boy of ten or twelve years, 3 l.

Maids, 4 l. to 5 l.

Women *per* day in harvest, 10 d. and board.

In hay time, 10 d. and beer.

In winter, 8 d.

P R O-

P R O V I S I O N S, &c.

Bread, $10\frac{1}{2}d.$ the half-peck loaf.

Cheese, $4\frac{1}{2}d.$

Butter, $6\frac{1}{2}d.$ to $7d.$

Beef, $2\frac{1}{2}d.$

Mutton, $3\frac{1}{2}d.$

Veal, $3\frac{1}{2}d.$

Pork, $4d.$

Milk, $1d.$ per pint.

Potatoes, $5s.$

House rent, $4l.$ to $6l.$

Gardens here lett from $2l. 2s.$ to $5l. 5s.$
an acre.

Passing through *London*, I returned home by *Highbate* and *Barnet*, through a prodigious fine track of grass farms, that lett from $1l. 15s.$ to $4l.$ an acre. But when passed *Barnet*, the soil declines greatly, and falls in rent to $18s. 1l.$ and $1l. 10s.$ and in a few miles gets down to $15s.$ on an average.

Enfield-chace cannot be viewed by any lover of his country, or of husbandry, without much regret; so large a track of waste land, so near the capital, within the reach of *London*, as a market, and a dunghill, is a real nuisance to the public. The soil is capable of yielding any production, being either a rich clay, or a good gravel; the luxuriant growth of the spontaneous productions prove sufficiently what the cultivated ones might be: If this track of use-
less

less land was enclosed, with farm houses, and proper offices built, it would lett at once for 15 s. an acre, without further expence. It is undoubtedly worthy of his Majesty's consideration, whether the noble improvement of his private revenue, which might in this, as well as many other instances, be easily made, is not very well worth some attention, in points wherein the good of the whole nation is in proportion to the increase of the profit of the crown.

* * * *

And now, Sir, being at last arrived at home, after so long a journey, you may naturally expect I should give you some information of *my own*, after acquiring so much of almost every person I have met with : — I shall therefore minute, under the preceding heads, the husbandry of this neighbourhood.

The soil is extremely various : Here are many tracks of strong clay land ; some of a stiff loam ; others of a light loam ; but in general it is a blue pebbly gravel ; amazingly unkind in the production of any crop without plenty of manure. A soil highly worthy the attention of the curious in husbandry. To render it profitable land, I believe is the *ne plus ultra* of the most spirited improver. It is naturally so poor, that you will not have your seed in any corn crop : in grass it is utterly contemptible : much of it too wet for sainfoine : and if you manure it

it

it ever so richly, the virtue is presently gone. Rents rise from 5*s.* an acre to 20*s.* a few spots at 30*s.* The average I reckon at 12*s.*

Farms from 20*l.* to 180*l.*

The principal course, subject however to numerous variations, according to circumstances, is this:

- | | |
|-----------|------------|
| 1. Fallow | 5. Turneps |
| 2. Wheat | 6. Barley |
| 3. Pease | 7. Clover |
| 4. Oats | 8. Oats. |

For wheat they plow four or five times, sow two bushels and a half about *Michaelmas*, and reap on a medium twenty bushels.

For barley they give two earths, sow three or four bushels in *March* or *April*, and gain upon an average three quarters.

They stir but once for oats, sow three or four bushels about the same time with barley, and reckon the average product at four quarters.

But few beans.

For pease they give but one plowing, sow two bushels and a half in *February*, never hoe them, and gain about three quarters in return. But they have several soils with variations of management.

They plow three times for turneps, hoe once or twice as requisite, and calculate the average value *per* acre at 30*s.* use them chiefly for sheep.

Clover they sow with oats or barley; always mow it, and generally twice; gain about

about two and a half or three loads of hay at the two mowings; a load is thirty-six trusses, of fifty-six pounds each, or eighteen hundred weight.

In the article of manuring they are very attentive; indeed the poorness of the soil renders this highly requisite.

Chalk the best farmers among them use in considerable quantities. There is a stratum of it under all this country, but in some places it lies sixty, seventy, and eighty feet below the surface, in which case it does not answer to get it; the general depth is from ten to forty feet. The workmen who make it their business to draw chalk, generally fix upon the lowest places that are not wet to sink their pits in: They dig them in the nature of a well, and use a winch and tub like a bucket, which holds about a bushel and three-quarters to wind up the chalk. The common price is *4d. per* foot for the well until they come at the chalk pit; and *6d.* a load of eighteen tubs of it, laid in heaps about the pit.

The farmers lay on from fifteen to thirty loads an acre, which they reckon a good dressing, and will last twelve or fifteen years, and sometimes twenty, in tolerable heart; but as it is not a fat soapy kind, I apprehend this quantity much too small; sixty, seventy, or eighty, and even a hundred, would be of much more than a proportional benefit.

From

From *London* they bring many sorts of manure : They carry up hay, straw, or chaff cut out of straw or hay, and come down loaded with bones, cows or hogs hair, cows hoofs, coal ashes, foot, horse-dung, &c. The hair and hoofs are about a guinea a load, of forty bushels. Bones from 8*s.* to 15*s.* coal ashes, 2*s.* 6*d.* to 5*s.* and horse-dung, 1*s.* or 1*s.* 6*d.* For this work waggons are much wanted, but most of it is done with carts.

The same team and men go three times a week, setting out about ten, eleven, or twelve o'clock on *Sunday* night, and return about five o'clock on *Monday* afternoon. *Tuesday* is a broken day for odd jobbs, or a little plowing. At night they go again, and return on *Wednesday*. *Thursday* is another idle day : At night they go again, and return on *Friday*. *Saturday* a little plowing done. If they begin on *Monday* night (instead of *Sunday*) they then finish on *Saturday* night instead of *Friday* night. The intermediate days are, however, often employed in getting ready the load ; and if not, they are of little value to the farmer, as the horses, having been worked pretty hard, want rest, and the men will always be ready enough to take it. Some few go on purpose for manure, without carrying a load up, but the expence is very heavy, and some think can scarcely answer, which is a point I design trying experimentally.

Bones are a very odd manure, but they find them of great benefit to their clay lands, and will last twenty years good.

Very good grafs will lett for 20s. an acre; I mean *very good* in comparifon with the reft. It is chiefly applied to feeding cows for dairying, but more for fuckling. An acre and half they reckon fufficient for the fummer feed of a cow. In winter they feed them on hay, ftaw, and turneps. Thofe in milk all on hay, and calculate that they eat on an average two loads. The joift in a ftaw yard is 9d. a week, and in fummer, 1s. The annual produft, whether in dairying or fuckling, they calculate at from 4l. to 8l. The quantity of milk two or three gallons a day. Much more fuckling than dairying.

The breed moft common is the *Welch*. The calves fuck eight, nine, or ten weeks. To ten cows in a dairy they keep about three fows, but fell off the pigs young. Eight or nine cows the common number for a dairy maid to look after.

Their hogs fat up to thirty ftone (eight pounds.)

The flocks of fheep are extremely various, from twenty to three hundred; the profit is differently calculated; I have heard it laid from 7s. to 12s. and fome to 15s. a head. The winter and fpring food is grafs, hay, and turneps; the winter joift

1½d.

1½*d.* and 2*d.* a week. But in summer, as soon as the corn is got in, any farmer will give the feed for the benefit of folding them. All are folded here, even so few as twenty or thirty. The fleeces from one pound and a half to six pounds.

In their tillage they reckon eight horses necessary for an hundred acres of arable land: Use four in a plough, (of a vile enormous heavy construction,) with a driver, and do about an acre a day. They break up their stubbles for a fallow soon after *Christmas*, plow from four to six inches deep; the price 5*s.* *per* acre.

The hire of a cart, three horses, and driver, 10*s.* a day.

They reckon the annual expence of a horse at 10*l.* The summer joist is 2*s.* a week, and that of the winter, in a straw yard, 1*s.* 6*d.* Vast quantities of both hay and straw are cut into chaff, the price of cutting 1*d.* a bushel, each bushel (in chaff measure) two strikes; and a man will earn at it, if a good hand, from 3*s.* to 4*s.* a day.

There is much both to commend and disapprove in their fences; for their hedges are admirable, but they have no ditches, by which means the hedge suffers greatly, and turns out an indifferent fence. Their method of making them is that of plashing; when they cut the old hedge they leave abundance of wood standing, and some of it

very large. Many of the sticks thus left are cut off at a proper height for hedge stakes; then the rest of the wood left is bent down, and interwoven with dead bushes, among the hedge stakes; and such of the living wood as is too large to bend, they cut it enough at bottom to make it. Thus the hedge is partly living and partly dead; but as it is well intermixed, and grows in its horizontal posture, and many of the stakes being alive, the hedge remains a long time impenetrable; so that if you look into a very old one you will see much of the dead hedge standing in it; and were there good ditches, all of it would remain.

In *Suffolk, Norfolk, &c. &c.* in ditching, they cut up all the wood, and make the hedge totally of that which is dead; the consequence of which is, the stakes presently rot, and give way, and a horse, or even a sheep, breaks through and makes a large gap; and a high wind carries away whole perches of it. The method of this country is infinitely preferable, and would, with *Suffolk* ditches, form impenetrable fences.

The following sketches of several farms in this neighbourhood, will shew the general œconomy of it.

200 acres in all	8 horses
140 arable	6 cows
60 grass	40 sheep
£.36 rent	2 men
	1 boy

1 boy
2 maids
1 labourer

4 carts
2 ploughs.

Another,

300 acres in all
40 arable
260 grafs
£.40 rent
5 horses
18 cows
5 young cattle

50 sheep
1 boy
2 maids
1 labourer
6 carts
2 ploughs.

Another,

70 acres in all
30 arable
40 grafs
£.50 rent
4 horses

2 cows
1 man
1 maid
2 carts
1 plough.

Another,

80 acres in all
70 arable
10 grafs
£.60 rent
6 horses
8 cows

100 sheep
2 men
1 boy
1 maid
4 carts
2 ploughs.

Another,

200 acres, all arable
£.130 rent
10 horses
5 cows
100 sheep
4 men

3 boys
1 maid
6 labourers
6 carts
3 ploughs.

Another,

100 acres in all	2 men
40 grafs	1 boy
60 arable	5 labourers
£.60 rent	1 waggon
8 horfes	5 carts
4 cows	3 ploughs.

Such numbers of carts as some of these farmers use are very uselefs; one waggon would be preferable to many of them. I should, however, remark, that in their carts one sort is extremely useful, viz. small three wheeled ones with broad wheels, that hold from twelve to fifteen bushels of earth, and are used on grafs land all winter long, without cutting or poaching, which is a prodigious useful circumstance. Here follows a draft of one.

Plate XIV. Fig. 1.

		<i>Feet.</i>	<i>Inches.</i>
<i>a</i> to <i>b</i>	----	4	6
<i>b</i> <i>c</i>	----	2	0
<i>c</i> <i>b</i>	----	4	0
<i>b</i> <i>i</i>	----	3	4
<i>k</i> <i>l</i>	----	2	0

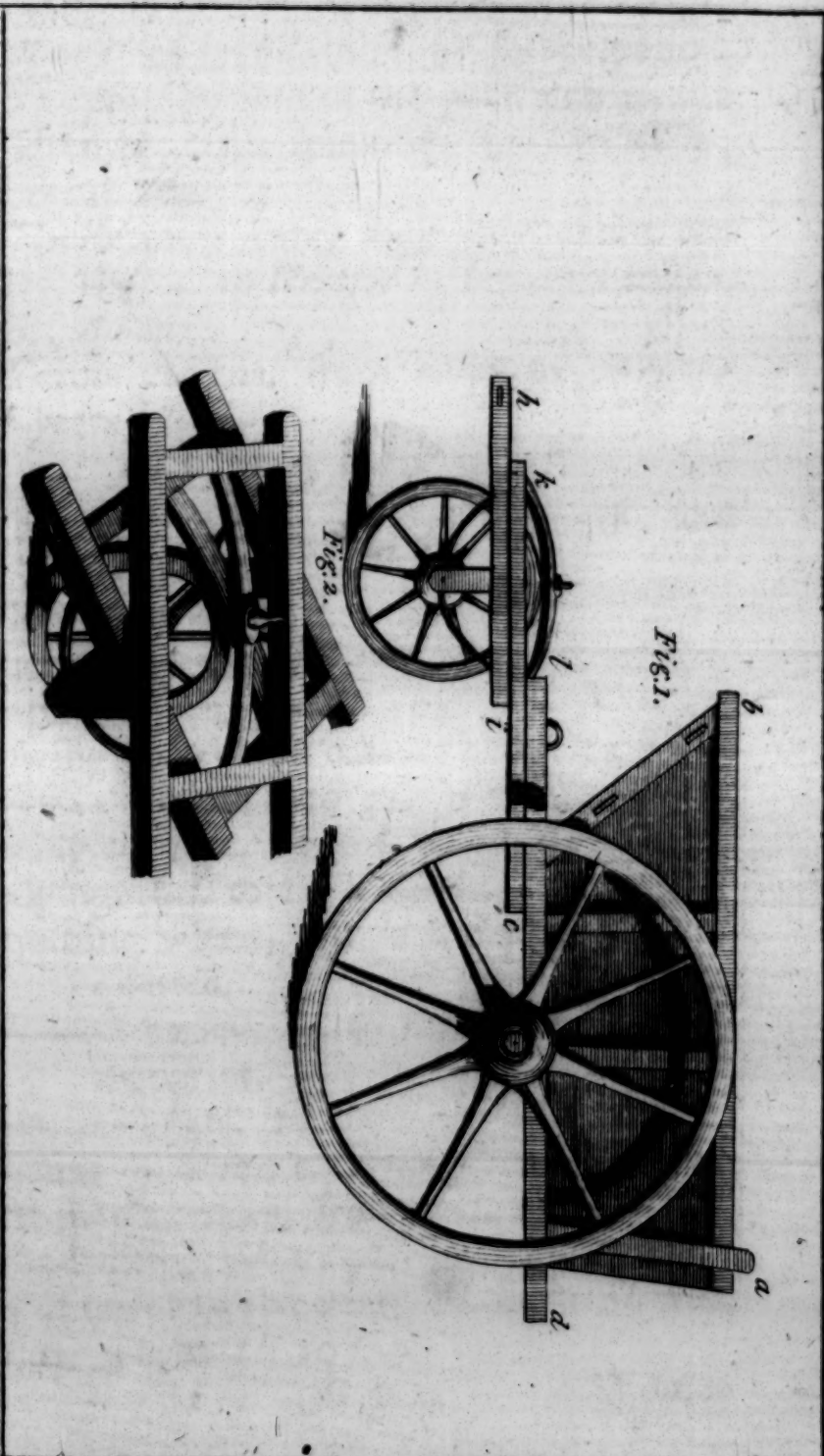
Fig. 2. the fore-wheel at large.

In the hiring farms they reckon three rents will stock.

Land sells from twenty-six to thirty years purchase. Many small estates from 50*l.* to 400*l.* a year.

Tythes compounded for, some in the general for a whole farm, some by the acre.

Wheat





Wheat 4*s.* turnep land, barley 4*s.* oats, pease, beans, and vetches, 2*s.* Mowing ground, 2*s.*

Poor rates 1*s.* 6*d.* to 2*s.* 6*d.* in the pound.

The employment of the poor women and children is a little spinning, and but little : All drink tea.

The farmers carry their corn about ten miles, that is, to *Hertford*; some fix miles, to *St. Albans*.

Terms various, from seven to twenty-one years.

L A B O U R.

In harvest, 36*s.* to 37*s.* for a month, and board.

In hay time, 1*s.* 6*d.* a day.

In winter, 1*s.* 2*d.*

Reaping wheat, 5*s.* to 10*s.*

Mowing barley and oats, 1*s.* 6*d.* to 2*s.*

----- grafs, 2*s.* to 5*s.*

Hoeing turneps, 4*s.* 6*d.* to 5*s.* 6*d.*

Hedging, 6*d.* to 1*s.* a perch.

Threshing wheat, 2*s.* 2*s.* 6*d.* and 3*s.* a quarter.

----- barley, 1*s.* to 1*s.* 6*d.* and 1*s.* 8*d.* a quarter.

----- oats, 1*s.*

Amount of a year's earnings, 25*l.* to 30*l.*

First man's wages, from 10*l.* to 12*l.* 12*s.*

Second ditto, 7*l.* to 9*l.*

Boy of ten or twelve years, 2*l.* 2*s.* to 2*l.* 10*s.*

Maids, 4*l.* to 5*l.* 10*s.*

B b 4

Women

Women *per* day in harvest, 1 s.

----- in hay time, 10 d.

----- in winter, 6 d.

I M P L E M E N T S, &c.

A cart, 10 l. to 12 l.

A three wheeled ditto, 6 l. 6 s. to 7 l.

A plough, 3 l. 3 s.

A harrow, 1 l. 10 s. to 2 l.

A roller, 1 l. 10 s. to 2 l. 15 s.

A scythe, 4 s. 6 d. to 5 s.

A spade, 4 s. to 4 s. 6 d.

Shoeing, 2 s.

P R O V I S I O N S, &c.

Bread, 1 $\frac{1}{2}$ d.

Cheese, 4 d. to 4 $\frac{1}{2}$ d.

Butter, 8 d.

Beef, 3 $\frac{1}{2}$ d.

Mutton, 3 $\frac{1}{2}$ d.

Veal, 4 $\frac{1}{2}$ d.

Pork, 4 $\frac{1}{2}$ d.

Bacon, 7 d.

Milk, 1 d. *per* pint.

Potatoes, 5 d.

Candles, 7 d.

Soap, 7 d.

Labourer's house rent, 2 l. to 5 l.

----- firing, turf, ling, heath, &c.

----- tools, 7 s. 6 d.

From this slight sketch, it is evident, we have much to amend in common with our neighbours.

And

And now, having at last brought the register of this tour to a conclusion, you must next allow me to make such general remarks on the substance of the intelligence, as are requisite for the deduction of useful maxims; without these, this long ramble would lose much of the benefit which I apprehend may be extracted from it; but of that you will, from the succeeding letters, be a better judge.

I am, &c.

L E T-

L E T T E R XXIV.

UPON reviewing the particulars of this journey, I am struck with a vast variety of materials, that call for such an examination, that I am in pain at the undertaking: I have hitherto given the mere register of a journey, and inserted in it a variety of articles, with an eye to reduce all to averages, and from them to draw such conclusions as their nature dictated: But now the grand object is before me, I want several penetrating political arithmeticians at my elbow to point out the combinations between different, and seemingly distinct circumstances, too many of which will, I fear, escape me; however, relying on your candour, I shall attempt this part of my undertaking, and offer such remarks as appear to me to be demanded by the preceding intelligence.

The first circumstance I shall examine is the soil, the rent of it, and the product in grain, *viz.* wheat, rye, barley, and oats. I keep these distinct from pulse, roots, &c. as they in general depend (with many exceptions, however) on the richness of the soil; whereas beans, turneps, &c. receive amazing variations from culture scarce ever given to grain.

From

From *Hatfield* to *Welwyn*.

Soil. A light gravel.

Rent, 12 s.

			Qrs.	B.	P.
Product.	Wheat	- -	3	1	0
	Barley	- -	4	0	0
	Oats	- -	4	0	0

Around *Stevenage*.

Soil. Much cold clay,

Rent, 9 s.

Product.	Wheat	- -	2	7	0
	Barley	- -	4	4	0
	Oats	- -	4	4	0

From *Stevenage* to *Luton*, in *Bedfordshire*,
about *Offley*.

Soil. A chalky clay.

Rent, 5 s.

Product.	Wheat	- -	1	7	0
	Barley	- -	3	0	0
	Oats	- -	2	4	0

Dunstable to *Wooburn*, about *Houghton*.

Soil. Various; chalk, clay, loam, and
sand.

Rent, 14 s.

Product.	Wheat	- -	1	7	0
	Barley	- -	2	7	0
	Oats	- -	3	0	0

About *Milton*.

Soil. Clay and gravel.

Rent, 13 s. 9 d.

Product.	Wheat	- -	2	4	0
	Barley	- -	3	0	0
	Oats	- -	4	0	0

Wooburn

Wooburn to Newport Pagnel, about Wanden.

Soil. Sand.

Rent. Open, 7s. 6d. Inclosed, 11s.

Average, 9s. 3d.

Product.	Wheat	-	-	3	0	0
	Barley	-	-	3	0	0
	Oats	-	-	3	0	0

About *Broughton*.

Soil. Various; much excellent.

Rent, 20s.

Product.	Wheat	-	-	3	1	0
	Barley	-	-	5	0	0
	Oats	-	-	4	4	0

From *Newport Pagnel* to *Bedford*, about *Astwick*.

Product.	Wheat	-	-	1	7	0
	Barley	-	-	3	4	0
	Oats	-	-	2	2	0

This is a great bean country: the soil, tho' not minuted, I remember to be a stiff loam and clay.

About *Biddenham*.

Soil. All sorts, from gravel to clay.

Rent. Open 3s. Inclosed, 11s.

Average, 7s.

Product.	Wheat	-	-	2	6	0
	Barley	-	-	3	0	0
	Oats	-	-	3	0	0

From *St. Neot's* to *Kimbolton*, about *Hale Weston*.

Soil. Gravelly loam.

Rent. Open, 7s. 3d. Inclosed, 17s.

Average, 12s. Pro-

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Product.	Wheat	-	-	-	1	7	0
	Barley	-	-	-	3	0	0
	Oats	-	-	-	2	0	0

From *Kimbolton* to *Thrapston*, about *Great Catworth*.

Soil. Clay. Some gravelly loams.

Rent, 17s.

Product.	Wheat	-	-	-	2	6	0
	Barley	-	-	-	3	0	0
	Oats	-	-	-	2	4	0

From *Thrapston* to *Oundle*, about *Ayechurch*.

Soil. Strong clay.

Rent, 5s.

Product.	Wheat	-	-	-	3	0	0
	Barley	-	-	-	4	0	0

Near *Stamford*, about *Casterton*.

Soil. Clay and poor sandy loam.

Rent. Open, 6s. Inclosed, 20s.

Average, 13s.

Product.	Wheat	-	-	-	2	4	0
	Barley	-	-	-	4	0	0
	Oats	-	-	-	5	0	0

From *Stamford* to *Grimsthorpe*, about *Little Byten*.

Soil. Clay and gravelly loam.

Rent, 4s.

Product.	Wheat	-	-	-	2	0	0
	Barley	-	-	-	2	0	0
	Oats	-	-	-	1	4	0

From *Colsterworth* to *Grantham*, about *Paonton*.

Soil. A loamy gravel.

Rent, 10s.

Pro-

Product.	Wheat	-	-	-	3	4	0
	Barley	-	-	-	3	4	0
	Oats	-	-	-	4	0	0

From *Grantham* to *Newark*, about *Fossen*.

Soil. Rich clay.

Rent, 10s.

Product.	Wheat	-	-	-	3	3	0
	Barley	-	-	-	3	3	0

From *Newark* to *Tuxford*, about *Cromwell*.

Soil. Sandy.

Rent, 15s.

Product.	Barley	-	-	-	4	0	0
	Oats	-	-	-	4	0	0

Around *West Drayton*.

Soil. A rich sandy gravel.

Rent, 11s.

Product.	Barley	-	-	-	4	4	0
	Oats	-	-	-	5	0	0

From *Bawtry* to *Doncaster*, around *Cantler*.

Soil. Sand.

Product.	Barley	-	-	-	3	4	0
	Wheat	-	-	-	2	0	0
	Rye	-	-	-	2	0	0
	Oats	-	-	-	3	0	0

From *Doncaster* to *Rotherham*, about *Conesborough*.

Soil. A sandy gravel.

Rent, 9s.

Product.	Wheat	-	-	-	2	4	0
	Barley	-	-	-	4	0	0
	Oats	-	-	-	4	0	0

From *Sheffield* to *Barnsley*, about *Ecclesfield*.

Rent, 17s.

Pro-

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Product.	Wheat	-	-	2	4	0
	Barley	-	-	4	0	0
	Oats	-	-	4	0	0
	Rye	-	-	3	6	0

At *Wooley*.

Soil. Clay.

Rent, 12s. 6d.

Product.	Wheat	-	-	2	6	0
	Barley	-	-	3	4	0
	Oats	-	-	5	0	0

From *Leeds* to *Tadcaster*, about *Kiddel*.

Soil. Limestone clay.

Rent, 8s. 6d.

Product.	Wheat	-	-	2	3	0
	Barley	-	-	4	0	0
	Oats	-	-	5	4	0

From *York* to *Barnby Moor*, about *Wilbersfort*.

Soil. Clay; and sandy loam.

Rent, 10s.

Product.	Wheat	-	-	3	6	0
	Barley	-	-	4	3	0
	Rye	-	-	3	1	0
	Oats	-	-	6	7	0

Around *Hatton*.

Soil. Gravel.

Rent, 12s. 6d.

Product.	Wheat	-	-	2	1	2
	Barley	-	-	1	7	0
	Rye	-	-	2	4	0
	Oats,	-	-	4	0	0

About *Barnby Moor*.

Soil. Sand and gravel.

Rent.

Rent. Open, 7s. 6d. Inclosed, 20s.

Average, 13s. 9d.

From *Market Weighton* to *Beverley*; at *Bishop's Burton*. Some rich open land, 18s. rent, that yields very considerable products.

From *Beverley* to *Hull*, around *Risby*.

Soil. A loam on chalkstone.

Rent. Open, 6s. 6d. Inclosed, 12s.

Average, 9s. 3d.

Product. Wheat (open)	2	1	2
(inclosed)	3	2	0
Average	2	5	3
Barley (open)	4	2	0
(inclosed)	5	0	0
Average	4	5	0
Oats (open)	4	0	0
(inclosed)	5	4	0
Average	4	6	0

Around *Stillingfleet*.

Soil. Clay and sand.

Rent, 10s.

Product. Wheat	-	-	3	0	0
Barley	-	-	3	0	0
Oats	-	-	4	0	0
Rye	-	-	3	0	0

In *Holdernefs*.

Soil. Clay.

Rent, 17s. 6d.

Product. Wheat	-	-	4	0	0
Barley	-	-	5	0	0
Oats	-	-	5	0	0

Around *Howden*.

Soil. Clay.

Rent.

Rent. Open, 10s. Inclosed, 20s.

Average, 15s.

Product.	Wheat	-	-	3	0	0
	Barley	-	-	4	0	0
	Oats	-	-	5	0	0
	Rye	-	-	3	0	0

Around *Thorne*.

Soil. Strong clay.

Rent, 10s.

Product.	Wheat	-	-	3	0	0
	Barley	-	-	4	4	0
	Oats	-	-	6	0	0

The Marquis of *Rockingham's Kentish* farm.

Soil. A rich deep black loam.

Product.	Wheat	-	-	4	0	0
	Barley	-	-	5	0	0
	Oats	-	-	4	0	0

His Lordship's *Hertfordshire* farm.

Soil. A strong clay ; and hazel loam.

Product.	Wheat	-	-	2	2	0
	Barley	-	-	4	0	0
	Oats	-	-	5	0	0

Country around *Wentworth-House*.

Soil. Clay and loam.

Rent, 8s.

Product.	Wheat	-	-	3	3	0
	Barley	-	-	5	0	0
	Oats	-	-	5	0	0
	Rye	-	-	3	0	0

From *Wentworth* to *Kiveton*, about *Ashton*.

Soil. Sand.

Rent. Open, 3s. 6d. Inclosed, 10s.

Average, 6s. 9d.

VOL. III.

C c

About

About *Kiveton*.

Rent, 8*s*.

From *Kiveton* to *Welbeck*.

Soil. Sand.

Rent, 6*s*.

About *Worksop*.

Soil. Sandy.

Rent, 5*s*. 3*d*.

From *Doncaster* to *Pontefract*.

Soil. Various.

Rent, 13*s*. 6*d*.

About *Pontefract*.

Rent, 20*s*.

From *Pontefract* to *Methley*.

Soil. Rich.

Rent, 25*s*.

From *Methley* to *Temple Newsham*.

Soil. Very rich.

Rent, 25*s*.

Product. Wheat	-	-	4	3	0
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Barley	-	-	5	0	0
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From *Temple Newsham* to *Ferrybridge*.

Rent, 20*s*.

Around *Byrom*.

Soil. Sand.

Rent, 20*s*.

From *Beverley* to *Driffild*, around the latter place.

Soil. Clay.

Rent, 10*s*.

Product. Wheat	-	-	3	0	0
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Barley	-	-	3	4	0
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Oats	-	-	2	0	0
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From

From *Driffeld* to *Burlington*.

Soil. Open wolds.

Rent, 4*s.* 9*d.* much dearer in the few inclosures.

From *Boynton* to *Honnanby*.

Soil. Open wolds.

Rent, 2*s.* 2*d.*

Around *Honnanby*.

Rent, 4*s.* 3*d.*

Around *Ganton*.

Soil. Wolds; a light hazel loam.

Rent, 3*s.* 6*d.*

Product.	Bad wold land.	}			
	Open Barley	}	1	1	0
	Best ditto	-	3	0	0
	Best inclosures	-	4	4	0
	Average	-	2	7	
	Oats. Best wold	}			
	land. Open	}	4	0	0
	Ditto worst	-	1	4	0
	Average	-	2	6	

About *Brumpton*.

Soil. A rich loam on a limestone.

Rent, 14*s.*

Product.	Wheat	-	-	2	4	0
	Barley	-	-	4	0	0
	Oats	-	-	3	0	0

Around *Yeddingham-bridge*.

Soil. Sandy.

Rent, 6*s.* 6*d.*

Product.	Wheat	-	-	3	4	0
	Barley	-	-	5	0	0
	C c 2					Oats

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Oats	-	-	-	5	0	0
Rye	-	-	-	3	4	0

From thence to *Castle Howard*.

Soil. Various.

Rent, 13s.

Around *East Newton*.

Soil. Various; loam, clay, gravel, &c.

Rent, 12s.

Product.	Wheat	-	-	3	0	0
	Barley	-	-	3	4	0
	Oats	-	-	4	0	0
	Rye	-	-	2	4	0

About *Nunnington*.

Soil. Limestone land.

Rent. Open, 3s. 3d. Inclosed, 8s. 6d.

Average, 5s. 10d.

Product.	Wheat	-	-	2	0	0
	Barley	-	-	3	0	0
	Oats	-	-	3	6	0
	Rye	-	-	3	4	0

Across *Hambledon*; about *Kirby*.

Soil. A gravelly sand.

Rent, 5s.

Mr. *Turner's* farm at *Kirkleatham*.

Soil. Clay.

Rent, 8s. 4d.

Product.	Wheat	-	-	2	4	0
	Barley	-	-	4	2	0
	Oats	-	-	5	4	0

Country around *Kirkleatham*.

Soil. Clay.

Rent, 13s.

Product.

Product.	Wheat	-	-	3	1	0
	Barley	-	-	5	0	0
	Oats	-	-	5	0	0

At *Gilsdale*, in *Cleveland*.

Soil. Chiefly gained from moors.

Rent, 10s. 6d.

Product.	Wheat	-	-	2	4	0
	Oats	-	-	5	0	0
	Rye	-	-	3	3	0

From *Kirkleatham* to *Schorton*; through *Cleveland*.

Rent, 17s. 6d.

Towards *Schorton*.

Rent, 12s. 6d.

Around *Schorton*.

Soil. Loams, and gravels.

Rent, 10s.

Product.	Wheat	-	-	2	4	0
	Barley	-	-	4	0	0
	Oats	-	-	5	0	0
	Maclin	-	-	3	1	0

From *Richmond* to *Gilling*, around the latter.

Soil. Light loam, and moory clay.

Rent, 21s.

Product.	Wheat	-	-	3	1	0
	Barley	-	-	5	5	0
	Oats	-	-	5	5	0
	Rye	-	-	5	0	0

From *Gilling* to *Greta-bridge*.

Rent, 20s.

bout *Rookby*.

Soil. Moory, and gravelly.

C c 3

Rent,

Rent, 12s.

Product.	Wheat	-	-	-	2	0	0
	Barley	-	-	-	3	1	0
	Oats	-	-	-	4	0	0
	Rye	-	-	-	3	4	0

From *Afkrig* to *Fremington*, about the latter place.

Soil. Rich loam, and red gravel.

Rent, 30s.

About *Kiplin*.

Soil. Loamy gravel, and wet clay.

Rent, 12s. 6d.

Product.	Wheat	-	-	-	2	5	2
	Barley	-	-	-	4	0	0
	Oats	-	-	-	3	6	0

Mr. *Crowe's* husbandry at *Kiplin*.

Soil. Gravel and clay.

Rent, 12s. 6d.

Product.	Wheat	-	-	-	4	0	0
	Oats	-	-	-	7	0	0

Kiplin to *Swinton*; about the latter.

Soil. Loam and gravel.

Rent. Old land, 16s. 6d.

Product.	Wheat	-	-	-	2	4	0
	Barley	-	-	-	2	4	0
	Oats	-	-	-	3	0	0
	Rye	-	-	-	2	4	0

Moor-side country, near *Swinton*.

Soil. Light loams; sandy gravels, and moory.

Rent, 4s.

Product.	Oats	-	-	-	7	4	0
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N. B. One course after breaking up.
From

From *Swinton* to *Craik-hill*, around the latter place.

Soil. Gravel.

Rent, 13s. (10s. and 16s.)

Product.	Wheat	-	-	2	4	0
	Barley	-	-	3	4	0
	Oats	-	-	3	6	0

Around *Slenningsford*.

Soil. A shallow loam on lime-stone.

Rent, 8s.

Product.	Wheat	-	-	1	7	0
	Barley	-	-	2	4	0
	Oats	-	-	3	0	0

Mr. *Dalton's* husbandry.

Product.	Wheat	-	-	2	4	0
	Barley	-	-	3	4	0

Around *Danby*.

Soil. Gravelly, clay, and loam.

Rent, 12s. 6d.

Product.	Wheat	-	-	2	6	2
	Barley	-	-	4	0	0
	Oats	-	-	4	3	0
	Rye	-	-	5	5	0

Mr. *Scroop's* husbandry at *Danby*.

Soil and rent, as above.

Product.	Wheat	-	-	3	6	0
	Barley	-	-	5	0	0
	Oats	-	-	6	2	0
	Rye	-	-	5	5	0

Mr. *Scroop's* moor improvements at *Dalton*.

Soil. Black peat moor, and some light loam.

Rent, 0 0 0

Product.	Maſlin	-	-	3	0	0
	Oats	-	-	5	0	0

From *Danby* to *Aſgarth*, around the latter.

Soil. Good loam and gravel.

Rent, 20s.

Around *Raby-Caſtle*.

Soil. Gravel, or rich loam.

Rent, 16s.

Product.	Wheat	-	-	3	1	0
	Barley	-	-	4	3	0
	Oats	-	-	5	0	0
	Rye	-	-	5	0	0

Lord *Darlington's* huſbandry.

Soil and rent, the ſame.

Product.	Wheat	-	-	4	1	0
	Barley	-	-	5	5	0
	Oats	-	-	5	5	0

From *Raby* to *Durham*.

Rent, 21s. 6d.

Around *Newcaſtle*.

Rent, 3l. 10s.

From *Newcaſtle* to *Morpeth*, about *Gofſworth*.

Soil. Loam, ſandy.

Rent, 20s.

Product.	Wheat	-	-	2	0	2
	Barley	-	-	3	6	0
	Oats	-	-	3	6	0
	Rye	-	-	3	6	0

About *Morpeth*.

Soil. Loamy clay.

Rent, 12s.

Product.	Wheat	-	-	1	6	0
	Barley	-	-	2	4	0
	Oats					

Oats - - - 3 6 0

From *Morpeth* to *Alnwick*.

Rent, 12s.

Product. Wheat - - - 2 4 0

Barley - - - 3 6 0

Oats - - - 4 4 0

About *Alnwick*.

Soil. Light loam and gravel.

Rent, 15s.

Product. Wheat - - - 2 4 0

Barley - - - 5 0 0

Oats - - - 5 0 0

Rye - - - 2 4 0

From *Alnwick* to *Belford*.

Rent, 12s.

Product. Wheat - - - 2 4 0

Barley - - - 4 4 0

Oats - - - 4 4 0

Around *Belford*.

Soil. Clayey loam.

Rent, 15s.

Product. Wheat - - - 2 5 0

Barley - - - 5 0 0

Oats - - - 6 0 0

About *Waren*.

Soil. Black moory land.

Rent, 1s. 6d.

Product. Oats - - - 3 0 0

About *Hetton*.

Soil. Light loams, and black moory land.

Rent, 6s. 6d.

Pro-

Product.	Wheat	-	-	1	2	0
	Barley	-	-	3	0	0
	Oats	-	-	3	6	0

From *Belford* to *Berwick*.

Rent, 12s.

Product.	Wheat	-	-	3	0	0
	Barley	-	-	4	4	0
	Oats	-	-	4	4	0

From *Berwick* to *Wooller*.

Rent, 9s.

About *Fenton*.

Soil. Sandy loams.

Rent, 8s.

Product.	Wheat	-	-	3	0	0
	Barley	-	-	3	4	0
	Oats	-	-	5	0	0
	Rye	-	-	3	6	0

From *Wooller* to *Rothbury*.

— *Alnwick* to ditto.

} Moors.

About *Rothbury*.

Soil. Gravel, clay, sand, moory.

Rent. Open, 1s. 9d. Inclosed, 20s.

Average, 10s. 10d.

Product.	Wheat	-	-	2	2	0
	Barley	-	-	3	0	0
	Oats	-	-	6	2	0
	Rye	-	-	2	4	0

From *Rothbury* to *Wollington*, about
Cambo.

Soil. Clay, and moory.

Rent, 15s.

Product.	Wheat	-	-	3	0	0
	Barley	-	-	4	3	0
	Oats					

Oats	-	-	-	6	2	0
Rye	-	-	-	2	2	0

Wollington to Choloford-bridge.

Rent, 15s.

From *Choloford-bridge* to *Glenwelt*; all moors.

About *Glenwelt*.

Soil. Sand, gravel, and clay.

Rent, 12s. 6d.

Product.	Wheat	-	-	-	3	6	0
	Barley	-	-	-	4	0	0
	Oats	-	-	-	11	2	0
	Rye	-	-	-	4	3	0

From *Glenwelt* to *Brampton*, chiefly moors; rent of inclosures, 17s. 6d.

A few miles south of *Carlisle*, about *High Ascot*.

Soil. Light loam, gravel, and clay.

Rent, 15s.

Product.	Wheat	-	-	-	2	4	0
	Barley	-	-	-	2	4	0
	Oats	-	-	-	6	2	0

About *Penrith*.

Soil. Clay, sand, gravel, loam.

Rent. Open, 3s. Inclosed, 15s.

Average, 9s.

Product.	Wheat	-	-	-	3	0	0
	Barley	-	-	-	3	1	0
	Oats	-	-	-	3	4	0
	Rye	-	-	-	3	0	0

Penrith to *Keswick*; many moors; about the latter.

Soil. Hazel mold, gravel, and moory.

Rent. Inclosed, 25s. Pro-

Product.	Wheat	-	-	4	5	2
	Barley	-	-	5	0	0
	Oats	-	-	6	2	0

From *Penrith* to *Kendal*, about *Sbapp*.

Soil. Loam, on a lime-stone.

Rent. Open, 2*s.* 6*d.* Inclosed, 20*s.*

Average, 11*s.* 3*d.*

Product.	Barley	-	-	2	4	0
	Oats	-	-	4	3	0

From *Kendal* to *Burton*, about *Holme*.

Soil. Light loam, on lime-stone.

Rent, 21*s.*

Product.	Wheat	-	-	1	5	2
	Barley	-	-	2	4	0
	Oats	-	-	3	0	0
	Rye	-	-	1	5	2

From *Lancaster* to *Garstang*, about *Kabers*.

Soil. Clay, light loam, and sand.

Rent, 17*s.*

Product.	Wheat	-	-	3	2	0
	Barley	-	-	3	6	0
	Oats	-	-	5	0	0
	Rye	-	-	4	0	0

Around *Garstang*.

Soil. Clay, light loam.

Rent, 17*s.*

Product.	Wheat	-	-	4	3	0
	Barley	-	-	3	6	0
	Oats	-	-	5	5	0

From *Garstang* to *Preston* and *Wigan*.

Rent, 25*s.*

From *Wigan* to *Warrington*.

Rent, 30*s.*

From

From *Warrington* to *Prescot*, about *Bowles*.

Soil. Clay, and rich loam.

Rent, 17 s. 6 d.

Product.	Wheat	-	-	2	0	0
	Oats	-	-	3	1	0

From *Liverpool* to *Ormskirk*, about *Halfal*.

Soil. Sandy loam.

Rent, 15 s.

Product.	Wheat	-	-	3	6	0
	Barley	-	-	2	4	0
	Oats	-	-	2	4	0

From *Warrington* to *Altringham*.

Soil. Loam and sand.

Rent, 17 s. 6 d.

About *Altringham*.

Soil. Sand; some clay.

Rent, 20 s.

Product.	Wheat	-	-	3	6	0
	Barley	-	-	4	1	0
	Oats	-	-	5	5	0

At *Worsley*.

Rent, 2 l.

From *Dunham* to *Knotsford*.

Rent, 27 s. 6 d.

About *Knotsford*.

Soil. Clay and sand.

Rent, 16 s.

Product.	Barley	-	-	5	0	0
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From *Knotsford* to *Holmes Chapel*, about the latter.

Soil. Sand and clay.

Rent, 20 s.

Product.	Wheat	-	-	2	4	0
	Barley					

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Barley - - - 3 6 0

Oats - - - 3 6 0

From *Newcastle-under-line* to *Stone*.

Soil. Sandy loam.

Rent, 16s.

Product. Wheat - - - 2 6 0

Barley - - - 3 6 0

Oats - - - 5 0 0

About *Rudgeley-bridge*.

Soil. Clay, sandy gravel, and loam.

Rent, 17s.

From *Rudgeley-bridge* to *Litchfield*.

Rent, 25s.

About *Shenstone*.

Soil. Sand and gravel.

Rent, 15s.

Product. Wheat - - - 3 1 0

Barley - - - 5 0 0

Oats - - - 5 5 0

Rye - - - 3 6 0

From *Litchfield* to *Birmingham*, about *Aston*.

Soil. Sandy.

Rent, 17s. 6d.

Product. Wheat - - - 3 0 0

Barley - - - 3 1 0

Oats - - - 4 0 0

From *Birmingham* to *Hales-Owen*.

Rent, 12s.

About *Hagley*.

Soil. Light loam, sand, and clay.

Rent, 20s.

Product. Wheat - - - 3 4 0

Barley - - - 4 3 0

Oats

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Oats	-	-	-	4	4	0
Rye	-	-	-	2	4	0

Around *Broomsgrove*.

Soil. Sand and clay.

Rent, 30s.

Product. Wheat	-	-	4	5	2
Barley	-	-	5	2	2
Oats	-	-	6	2	0

From *Broomsgrove* to *Worcester*, four miles short of the latter.

Rent, 27s. 6d.

From *Worcester* to *Evesham*, about *Per-shore*.

Soil. Clay or loam.

Rent. Open 10s. Inclosed, 17s. 6d.

Average, 13s. 9d.

Product. Wheat	-	-	3	1	0
Barley	-	-	3	0	0

About *Bendsworth* and *Evesham*.

Soil. Clay.

Rent, 21s.

Product. Wheat	-	-	4	0	0
Rye	-	-	4	0	0
Barley	-	-	6	0	0
Oats	-	-	8	0	0

From *Evesham* to *Oxford*, about *Moreton*.

Soil. Gravel.

Rent, 20s.

Product. Wheat	-	-	3	4	0
Barley	-	-	5	0	0
Oats	-	-	5	0	0

About *Chipping Norton*.

Rent, 6s. 6d.

About

About *Enstone*.

Rent, 11s.

From *Oxford* to *Henley*, around *Benfington*.

Soil. Gravel, sand, and clay.

Rent. Open, 13s. Inclosed, 30s.

Average, 21s. 6d.

Product.	Wheat	-	-	3	4	0
	Barley	-	-	4	0	0
	Oats	-	-	6	4	0

Around *Henley*.

Soil. Gravelly chalk, light loam, and clay.

Rent, 17s.

Product.	Wheat	-	-	3	0	0
	Barley	-	-	3	0	0
	Oats,	-	-	3	0	0

From *Henley* to *Maidenhead*.

Rent, 13s. 9d.

About *Maidenhead*.

Soil. Clay, or good loam.

Rent, 20s.

Product.	Wheat	-	-	3	4	0
	Barley	-	-	4	0	0
	Oats	-	-	5	0	0

From *Maidenhead* to *London*, about *Colnbrook*.

Rent, 20s.

Around *Harmondsworth*.

Soil. Gravel and loam.

Rent, 20s.

Product.	Wheat	-	-	2	4	0
	Barley	-	-	4	0	0

At

At *HammerSmith*.

Rent. Nursery and garden land, 3*l*.

About *Kensington*.

Soil. Clay, sand, and gravel.

Rent, 2*l*.

Product.	Wheat	-	-	6	0	0
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	Barley	-	-	8	0	0
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From *London* to *Barnet*.

Rent, 2*l*. 17*s*. 6*d*.

From *Barnet* to *North Mims*.

Rent, 16*s*.

About *North Mims*.

Soil. Pebbly gravel, and clay.

Rent, 12*s*.

Product.	Wheat	-	-	2	4	0
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	Barley	-	-	3	0	0
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	Oats	-	-	4	0	0
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Having thus inserted the variety of soils, rent, and products; it is in the next place necessary to throw them into averages, that the proportion between each may be seen, from whence we shall at once know whether rent bears a due proportion to product; and if it does not, conjecture the reason. The utility of such a complete view must be obvious at the very first mention of it.

Rents under 5s. per acre.

Countries *.	Rent.	Bushels.				Aver.
		Wh.	Bar.	Oats.	Rye.	
Stevenage to Luton, }	5s.	15	24	20		19
Thrapston to Oundle, }	5	24	32			28
Stamford to Grimsthorp, }	4	16	16	20		26
Average,		18	27	17		
Ganton on Wolds	3s. 6d.		23	22		22½
Swinton Moor- side, }	4			†60		
Waren Moors,	1 6			†24		

Average rent of these, — £. 0 3 10

Ditto product, twenty-three bushels.

Rent something better than 2d. per bushel.

* These are not calculated for a line of country; but I say from such a place to such a place, as more distinguishing than naming a village.

† The Swinton Moors only one crop in a course; and the Waren Moors yielding only oats, I reject them from the averages, as they would evidently injure the truth.

Rent

Rents from 5s. to 10s. per acre.

Countries.	Rent.	Bushels.				Aver.
		Wh.	Bar.	Oats.	Rye.	
Around Stevenage, }	9s.	23	36	36		31
Wooburn to Newport Pagnel, }	9 3d.	24	24	24		24
Newport to Bedford,— Biddenham, }	7	22	24	24		23
Colstersworth to Grantham, }	10	28	28	32		29
Grantham to Newark, }	10	27	27			27
Doncaster to Rotherham, Coneybro', }	9	20	32	32		28
Leeds to Tadcaster, }	8 6	19	32	44		31
York to Barnby-moor, }	10	30	35	55	25	36
Risby,	9 3	22	37	38		32
Stillingfleet,	10	24	24	32	24	26
Thorne,	10	24	36	48		36
Wentworth-house, }	8	27	40	40	24	32

D d 2

Driffield,

Countries.	Rent.	Bushels.				
		Wh.	Bar.	Oats.	Rye.	Aver.
Driffeld,	10s.	24	28	16		22
Yeddingham- bridge, }	6 6d.	28	40	40	28	34
Nunnington,	5 10	16	24	30	28	24
Kirkleatham, Mr. Turner's farm, }	8 4	20	34	44		32
Schorton,	10	20	32	40	25	29
Steningford,	8	15	20	24		19
Mr. Dalton's husbandry, }	8	20	28			24
At Hetton, in Northumber- land, }	6 6	10	24	30		21
Fenton,	8	24	28	40	30	30
Penrith, ditto,	9	24	25	28	24	25
Averages,		22	30	34	26	

Average rent of these, 8s. 6d.

Ditto product 28 bushels.

Rent about 3½d. per bushel.

Rents

Rents from 10s. to 15s. per acre.

Countries.	Rent.	Bushels.					Aver.
		Wh.	Bar.	Oats.	Rye.		
Hatfield to } Welwyn,	12 s.	25	32	32		29	
Dunstable to } Wooburn,	14	15	23	24		20	
Ditto,	13 9d.	20	24	32		25	
St. Neot's to } Kimbolton,	12	15	24	16		18	
Near Stamford,	13	20	32	40		30	
Newark to } Tuxford,	15		32	32		32	
West Drayton,	11		36	40		38	
Woolley,	12 6	22	28	40		30	
York to Barn- } by-moor,	12 6	17	15	32	20	21	
Howden,	15	24	32	40	24	30	
Near Scarbro', } Brumpton,	14	20	32	24		25	
East Newton,	12	24	28	32	20	26	
Around Kirk- } leatham,	13	25	40	40		35	
Gilsdale,	10 6	20		40	27	29	
Rookby,	12	16	25	32	28	25	
Kiplin,	12 6	21	32	30		27	

D d 3

Mr.

Countries.	Rent.	Bushels.				
		Wh.	Bar.	Oats	Rye.	Aver.
Mr. Crowe's husbandry, }	12s. 6d.	32	56			44
Craikbill, }	13	20	28	30		26
Danby, }	12 6	22	32	35	45	31
Mr. Scroope's husbandry, }	12 6	30	40	50	45	41
Morpeth, }	12	14	20	30		21
Morpeth to Alnwick, }	12	20	30	36		28
About Alnwick, }	15	20	40	40	20	30
Alnwick to Belford, }	12	20	36	36		30
Around Belford, }	15	21	40	48		36
Belford to Berwick, }	12	24	36	36		32
Rothbury, }	10 10	18	24	50	20	28
Rothbury to Wollington, }	15	24	35	50	18	31
Glenwelt, }	12 6	30	32	90	35	46
South of Carlisle, }	15	20	20	50		30
Penrith to Kendal, Shapp, }	11 3		20	35		27
Ormskirk, }	15	30	20	20		23

Rudgeley,

Countries.	Rent.	Bushels.				
		Wh.	Bar.	Oats.	Rye.	Aver.
Rudgeley- bridge to Litchfield, }	15s.	25	40	45	30	35
Worcester to Evesham, }	13 9d.	25	24			24½
North-Mims,	12	20	24	32		25
Averages,		22	30	37	27	

The average rent of these, 13s.

Ditto product 29 bushels.

Rent near 4½ d. per bushel.

Rents from 15s. to 20s. per acre.

Wooburn to Newport Pagnet, }	20s.	25	40	36		33
Kimbolton to Thrapston, }	17	22	24	20		22
Sheffield to Barnsley, }	17	20	32	32	30	28
Holdernefs,	17 6	32	40	40		37
Swinton,	16 6	20	20	24	20	21
Raby-castle,	16	25	35	40	40	35
LordDarling- ton's husban- dry, }	16	33	45	45		41

D d 4

Newcastle

Countries.	Rent.	Bushels.				
		Wh.	Bar.	Oats.	Rye.	Aver.
Newcastle to } Morpeth,	20s.	16	30	30	30	26
Lancaster to } Garflang,	17	26	30	40	32	32
About Gar- } flang,	17	35	30	45		36
Warrington } to Prescot,	17 6d.	16		25		20
Altringham,	20	30	33	45		36
Holmes-chapel,	20	20	30	30		26
Newcastle to } Stone,	16	22	30	40		30
Litchfield to } Birmingham,	17 6	24	25	32		27
Hagley,	20	28	35	36	20	29
Moreton,	20	28	40	40		36
Henley,	17	24	24	24		24
Maidenhead,	20	28	32	40		33
Harmond- } sworth,	20	20	32			26
Averages,		24	32	35	28	

The average rent of these, 18s.

Ditto product, 29 bushels.

Rent, $7\frac{1}{2}$ d. per bushel.

Rents

Rents from 20s. to 25s. per acre.

Countries.	Rent.	Bushels.				Aver.
		Wh.	Bar.	Oats.	Rye.	
Methley to } Temple New- sham, }	25s.	35	40			37
Richmond to } Gilling, }	21	25	45	45	40	38
Keswick,	25	37	40	50		42
Kendal to Bur- ton, }	21	15	20	24	13	18
Bendsworth,	21	32	48	64	32	44
Bensington,	21 6d.	28	32	52		37
Averages,		28	37	47	28	

The average rent of these, 1*l.* 2*s.* 6*d.*

Ditto product, 36 bushels.

Rent, 7½*d.* per bushel.

Rents from 25s. upwards.

Bromsgrove,	30	37	42	50		42
Kensington,	40	48	64			56
Averages,		42	53			

Average rent of these, 1*l.* 15*s.*

Ditto product, 49 bushels.

Rent, 8½*d.* per bushel.

Recapi-

Recapitulation.

Rate.	Rent.	Crop.	Price.
Under 5 <i>s.</i> <i>per</i> acre,	0 3 <i>s.</i> 10 <i>d.</i>	23	2 <i>d.</i>
5 <i>s.</i> to 10 <i>s.</i>	0 8 6	28	3½
10 <i>s.</i> to 15 <i>s.</i>	0 13 0	29	4½
15 <i>s.</i> to 20 <i>s.</i>	0 18 0	29	7½
20 <i>s.</i> to 25 <i>s.</i>	1 2 6	36	7½
25 <i>s.</i> upwards,	1 15 0	49	8½

It would have been impossible to throw these averages into proportions respecting the value of the products *per* measure; for land varies so much in the quality of its productions, that the attempt would end in nothing but confusion. In some of these articles are very great crops, which, in point of value, are not more than equal to those of middling ones, which is particularly the case with oats; but such variations must inevitably be numerous; indeed the variety may possibly throw them upon a par.

On this little table it is in the first place to be remarked, that the rise of the rent *per* bushel with the rent of the land is striking, and must flow from the low rents being very favourable: It does not arise from their producing ordinary sorts of corn only, which yield many bushels of but small value, for the *number* of bushels, *viz.* twenty, is the lowest in the table as well as the rent. Nor can

can it be attributed to the lowness of rent being a consideration either of the landlord or the tenant, on account of manuring; any extraordinary expence of which sort is, in fact, rent, though not paid to the landlord; and this also appears from the smallness of the product in quantity; that would contradict, and be out of proportion to the rent if the lands were richly manured.

It will certainly be said, that if the lowness of the rent arose from favour, the products would be greater: It is very difficult to answer this; nor is this the proper place for it; but I shall hereafter attempt to shew, that low rents, in many, very many cases, are prejudicial to the culture of the earth; consequently it is no contradiction to suppose the low rents in question to be those of favour, or at least under their value, which circumstance does not cause a disproportioned rise in quantity of product, as we see in the table, but only lowers the price of it to the farmer.

But there are disproportions in this table that require speaking to; 3*s.* 9*d.* rent give crops of twenty bushels; 8*s.* 6*d.* is more than double this, and yet the crop is only twenty-eight bushels, which is little more than the rise of a third, instead of more than half. Again, from 5*s.* to 10*s.* rent, from 10*s.* to 15*s.* and from 15*s.* to 20*s.* vary only one bushel in their average product:

duct: This is very extraordinary. I concluded from it, that there must be strong variations in the averages of the grains respectively; that the higher rented lands must be much superior to the lower in wheat, though inferior in other grains; this induced me to cast up the averages of each, and the result surprized me, for the proportions are not at all in favour of the larger rents. These soils, I conclude, are, upon an average, not very different, and that the variations in the rent arise from other circumstances; and the farmers that pay the higher ones, are re-imburfed in other crops than grain, in a greater proportion than those who have their lands so much cheaper; for we may be certain high rents are re-imburfed in something.

However, this idea of inequality must not be carried too far: We certainly are not to expect that the average product is to be doubled with the rent; that would be to contradict all common facts. The rise of eight bushels to the difference between 3*s.* 9*d.* and 8*s.* 6*d.* is considerable; for we should consider, that the acre which yields but twenty, costs the farmer in every thing, but rent, as much, or very near as much, as that which produces twenty-eight bushels; a circumstance of vast consequence. And the superiority of this eight bushels must be considered as an index to all the
other

other articles of product, which may be supposed equally superior.

Indeed, the succeeding superiorities of one bushel are not answerable to those of rent. But seeming contradictions of this sort must be expected in enquiries that depend on such variety of circumstances.

The equality of rent *per* bushel, between 18*s.* an acre and 22*s.* 6*d.* is very remarkable.

The rise of seven bushels product, from 18*s.* to 22*s.* 6*d.* is considerable, and that from 22*s.* 6*d.* to 25*s.* &c. the same; and it proves strongly that cultivation may be carried very high. Upon the whole, there is more correspondence between the rent and the product than I expected.

Average Products.

General average product of wheat throughout the four, three quarters *per* acre.

Of barley four quarters.

Of oats four quarters and a half.

Of rye three quarters three bushels.

These products are greater than I apprehended before I calculated them; but by no means large enough to authorize any one to calculate the average of the whole kingdom at so high quantities as of wheat four quarters, besides 4*s.* an acre of sheep feed, barley five quarters, and oats as much, as the prejudiced Writer of the *Enquiry into the Prices of Wheat, Malt, &c.* p. 111. does.

Having

Having thus endeavoured to state the comparison between rent and product, I shall, in the next place, enquire into the state of rent itself, not with an eye to any such proportions, but to gain the average of as large a part of the kingdom as I can, which is a point of much importance to political arithmetic.

From *North Mims*, through *Hatfield*, to *Welwyn*, the country is very good, and well cultivated; the average rent 12s. It continues also rich towards *Stevenage*; but at that place letts for no more than 9s. From *Stevenage* to *Luton* is worse; about *Offley* it is only 5s. but that is under the average of these nine miles: I shall call it 7s. From *Luton* to *Dunstable* the soil is not bad, nor the culture very much so; 9s. an acre is not far from the average rent. From *Dunstable* to *Wooburn* two minutes were taken, 14s. and 13s. 9d. but as there are some tracks very sandy, I shall call it 13s. From *Wooburn* to *Newport Pagnel* two minutes, 9s. 3d. and 20s. suppose the average 15s. From thence to *Bedford* a strong clay, great quantities of beans, rent of one minute 7s. but the average of the line is certainly 10s. From thence to *St. Neot's*, by *Northill* and *Sandy*, much good land, besides the rich gardens at the latter place, which are considerable; rent 12s. From thence to *Kimbolton*, 12s. To *Thrapston*,
the

the minute 17s. but as it is generally open, I shall call it but 10s.

Here I shall make a pause, for thus far the tour has been through a country that does not vary much in rent; it is a line of an hundred and nine miles, in which I have much reason to believe the general average rent very near the average of the preceding fums, which is 10s.

From *Thrapston* to *Stamford*, by *Oundle*, is in general uninclosed; at *Byten*, clay for 5s. and the average, I apprehend, not more than 7s.

From *Stamford* to *Grimsthorpe*, at *Caster-ton* 13s. but that being the average of open and inclosed, is above the general mark. At *Little Byten* 4s. Most of this country is open and poor: I shall call it but 5s. It is something better from *Grimsthorpe* to *Colsterworth*; but I should not apprehend more than 6s.

From *Colsterworth* to *Grantham* it improves much, and is inclosed chiefly on one side the road. At *Paonton* 10s.

From *Grantham* to *Newark* all open, but much good land. At *Fossien* 10s. To *Belvoir-Castle* inclosed, I reckon 9s. From *Newark* to *Bawtry* mostly inclosed; two minutes, 15s. and 11s. I calculate the average at 13s. But *Shirewood-Forest* is all open, and very sandy; the adjoining farms are lower; suppose the whole at 12s.

From

From *Bawtry* to *Doncaster* is a continued track of driving sand : I found, by enquiry, that rents were *very low*; the average of the whole cannot be more than 5*s*.

Here it is necessary to make another stop ; for as we next enter a very populous manufacturing part of the *West Riding*, rents may probably be affected. This line of country extends an hundred and seven miles, and the average rent is 8*s*.

From *Doncaster* to *Rotherham*, much very good, and some bad ; at *Coneyborough* so low as 9*s*. But vast tracks about *Rotherham*, from 20*s*. to 40*s*. and the numerous meadows upon the many rivers heighten the rent much ; I shall call this track 18*s*. From *Rotherham* to *Sheffield* much stoney soil that is bad, and grafs that letts high ; I calculate the average, as it is all a vale, and taking the neighbourhood of *Sheffield* into the account, at 25*s*. From *Sheffield* to *Barnsley* two minutes, 17*s*. and 12*s*. 6*d*. the country is in general pretty rich, the average 14*s*.. From *Barnsley* to *Leeds* it is various, much of it continues stoney ; I calculate the average at 12*s*.

From *Leeds* to *Tadcaster*, about *Kiddel*, 8*s*. 6*d*. average I suppose 10*s*.

Having now run through the manufacturing country, we must cast up our account again. This line is sixty-seven miles, and the average rent 15*s*. 6*d*.

A part

A part of the tour within this, is the following track: A line of ten miles, crossing *Wentworth-House* towards *Doncaster*, the average rent 10s. From *Doncaster* to *Pontefract* 13s. 6d. From *Pontefract* to *Temple Newsham* 25s. From *Temple Newsham*, by *Byrom*, to *Ferry-bridge*, 20s. This is a rich line of fifty-one miles, the average rent 17s.

Average of both 16s. 6d.

From *Tadcaster* to *York* I shall call 10s.

From *York* to *Stillingfleet* 10s.

From *York* to *Barnby-moor* three minutes, 10s. 12s. 6d. and 13s. 9d. As there are some open lands, I shall call the average but 9s. From *Barnby-moor* to *Beverley*, large tracks of open poor land, and not many rich ones to compensate: This track of country I do not imagine letts, on an average, at more than 7s. an acre.

From *Beverley* to *Hull*, about *Risby*, 6s. 6d. open, and 12s. inclosed; and as much of this country is open, the rent would not be above 9s. were it not for the low lands towards *Hull*, which are rich; call it therefore 12s. In *Holdernefs* 17s. 6d. the minutes; but as the cars lett from 6s. to 10s. we must not call the average more than 15s. From *Beverley* to *Thorne*, to and through the *Caves*, is much open and poor land; about *Howden* is a track of good clay, and some also at *Thorne*; rent of

these 15 s. but the whole line does not, I apprehend, exceed 10 s.

From *Beverley* to *Driffeld*, about the latter 10 s. but it is chiefly open wolds: the average I calculate at 6 s. From *Driffeld* to *Burlington* 4 s. 9 d. From thence to *Honnanby* wolds 2 s. 2 d. about the latter place 4 s. 3 d. The average I reckon 3 s. Around *Ganton*, a track twenty miles by fifteen, the wolds, &c. 3 s. 6 d. From *Scarborough* to *Malton*, about *Brumpton*, 14 s. Another minute 6 s. 6 d. and a third 13 s. The average rent of this track I calculate at 10 s. From *Malton*, by *Castle Howard*, to *Newton* and *Nunnington*, 12 s. and 5 s. 10 d. Average, as it is mostly good, 10 s. From *Newton*, across *Black Hambledon*, into *Cleveland*; through Mr. *Duncomb's* estate, the soil is tolerably good, but so extremely underlet, that I apprehend it will not raise the average greatly; the inclosures upon *Hambledon* are at 5 s. Upon a par the cultivated land in this track does not rise higher than 6 s. The moors lett for nothing, and are the greatest part of the country.

Here we must make another pause, for we next enter a very different country. The various tracks we have passed are a line of two hundred and thirty-seven miles, and the average rent is 8 s. But in it are several very large spaces of uncultivated land, such as bogs and marshes, by *Thorne*, &c. moors on
Hamble-

Hambledon, &c. I apprehend if these were proportionably reckoned, the average rent would not be more than 6 s.

From the descent into *Cleveland*, to *Kirkleatham*, 13 s. From *Kirkleatham* to *Schorton* and *Richmond*, through *Cleveland*, 17 s. 6d. towards *Schorton* 12 s. 6d. From ditto to *Richmond* 10 s. The average I calculate at 12 s.

From *Richmond* to *Greta Bridge*, two minutes, 20 s. and 12 s. The average, I apprehend, as the first lasts but a few miles out of *Richmond*, 14 s. (N. B. Some commons uninclosed, not reckoned.) From *Richmond* to *Kiplin* 12 s. 6 d. From *Kiplin* to *Swinton*, about the latter, 16 s. 6 d. but the average not more, I apprehend, than 14 s. From *Swinton* to *Craikhill* 13 s. From *Craikhill* to *Sleningford*, about the latter, 9 s. but as the extent is not great, we must call it 10 s. From *Sleningford* to *Danby* is through the neighbourhood of *Swinton*; it must not therefore be reckoned, as the country would otherwise be charged twice. From half way between *Swinton* and *Danby* to *Asgarth*, two minutes, 12 s. 6d. and 20 s. but as there is much moor fide land (and, by the way, many moors themselves) I shall not call the average more than 11 s. From *Richmond* to *Croft Bridge* I calculate at 12 s.

Thus far is a line of country which may very properly be thrown together; it ex-

tends an hundred and thirty-nine miles, and the average rent is 12s. 6d. *

From *Greta-bridge* to *Brough*, a continued moor. From *Bows* to the fall of *Tees*, a vast quantity of moors, but many tracks of grafs about the villages, and fine meadows spread over the vales, along the rivers, of an high rent, 20s. an acre and upwards.

From *Brough* to *Askrig*, mountains and moors.

To *Reeth* and *Richmond*, chiefly ditto, some spots of inclosed grafs, and fine vales, that lett at 30s. but they bear no proportion to the waste land.

This is a track of as wild country as any in *England*, continued mountainous moors, the upper parts of which do not yield the landlords a penny an acre rent; but the vales, as I have already observed, are good grafs. The extent of this line is eighty-three miles. As to the rent I know not how to calculate it: I do not apprehend that above one acre in fifty is cultivated; if we reckon the rent, at an average, at 9d. per acre, it is as much as it amounts to.

* It is proper to remark, that in calculating these averages, I reckon them according to distance; so that a proportion may hold between the rents, when twenty miles are at 10s. for instance, and fifteen at 6s. 6d. Perfect exactness must not be expected, but I am not far from the mark.

From

From *Croft-bridge* to *Darlington* and *Raby-castle*, 16 s. From *Raby* to *Durham*, 21 s. 6 d. From *Durham* to *Newcastle*, minuted as letting *very high*; considering the neighbourhood of those places, we cannot estimate it at less than 26 s.

This line extends across the county of *Durham*, the distance fifty miles; and the average rent a guinea *per acre*.

From *Newcastle* to *Morpeth*, two minutes, 20 s. and 12 s. Average I calculate at 15 s. From *Morpeth* to *Alnwick*, 12 s. From *Alnwick* to *Belford*, 12 s. From *Belford* to *Berwick*, 12 s.

This line extends through the cultivated part of *Northumberland* sixty-six miles; the average rent, 12 s. 6 d.

From *Berwick* to *Wooller*, 9 s. From *Wooller*, and from *Alnwick* to *Rothbury-moors*, vales included, the rent is not above 2 s. From *Rothbury* to *Cambo*, mostly moors; but as the inclosures around both those places, for a few miles, lett at from 10 s. to 15 s. an acre, we may calculate the average rent of this track at 6 s.

From *Cambo* to *Cbolford-bridge*, 15 s.

From *Cbolford-bridge* to *Glenwelt* all moors. The moor side farms about both places will not raise this track to above 6 d. *per acre*.

Here ends the line through the uncultivated part of *Northumberland*. It extends

eighty-eight miles, and the average rent is 5 s. The general average of the two lines through *Northumberland*, of one hundred fifty-four miles, is about 7 s. 9 d. But I should here remark, that much the greatest part of *Northumberland* lies to the westward of the cultivated line, and most of it is a chain of mountains and moors: If I was, from the preceding view, to give a random guess at the rent of the whole county, I should suppose it from 4 s. 6 d. to 5 s. per acre.

From *Glenwelt*, to *Carlisle*, by *Brampton*, chiefly moors; the inclosures 17 s. 6 d. I calculate the average at 8 s.

From *Carlisle* to *Penrith*, two minutes 15 s. each; about *Penrith*, 9 s. The average I reckon at 12 s.

From *Penrith* to *Keswick*, chiefly moors; the moor-side farms, and the meadows in the vales do not raise this track to more than 1 s. 6 d.

From *Penrith* to *Kendal*, above half is wild mountainous moors, and open cultivated lands do not lett for more than 2 s. 6 d. the inclosures and meadows in the vales rise to 20 s. The general average is not above 4 s.

From *Kendal* to *Burton*, about *Holme*, 21 s. but the average of the line not more than 15 s.

Here it is proper to pause, that we may discover the average of the two counties of *Cumberland* and *Westmoreland*. The extent of the tour through them is ninety miles, and the average rent 7 s. 6 d.

From

From *Burton* to *Lancaster* 15 s. From *Lancaster* to *Preston* two minutes, 17 s. each, and another 25 s. The average I calculate at 21 s.

From *Preston* to *Wigan* 25 s. From *Wigan* to *Warrington* 30 s. From *Warrington* to *Liverpool* one minute 17 s. 6 d. the average I calculate, including the neighbourhood of that port, at 27 s. From *Liverpool* to *Ormskirk* 16 s. From *Warrington* to *Altringham* 18 s. From *Altringham* to *Manchester* I calculate, considering that neighbourhood, at 25 s.

This line of country extends through the populous county of *Lancaster*, which is extraordinarily full of towns and manufactures. The distance is an hundred and twenty-three miles; and the average rent 22 s. 6 d.

From *Dunholm* to *Knotsford* 27 s. 6 d. From *Knotsford* to *Holmes Chapel*, about the latter, 20 s. The average I calculate at 16 s. From *Holmes Chapel* to *Newcastle-under-line* I calculate at 16 s. From thence to *Stone* 16 s. From *Stone* to *Rudgeley-bridge* 17 s. From *Rudgeley-bridge* to *Litchfield* 25 s. From *Litchfield* to *Birmingham* one minute 17 s. 6 d. but I calculate it at 20 s. From *Birmingham* to *Hales Owen* 12 s. From thence to *Bromsgrove*, about *Hagley*, 20 s. another minute 30 s. The average I calculate at 1 l. 1 s. From *Bromsgrove* to *Worcester* I reckon also a guinea. From *Wor-*

cester to *Evesham*, about *Pershore*, 13 s. 9 d. towards *Bendsworth* 21 s. The average I calculate at 17 s. From *Evesham* to *Moreton* 20 s.

I shall here make another pause, before we get into the stoney parts of *Oxfordshire*. This line of country passes through several counties; it extends an hundred and thirty-eight miles, and the average rent is 17 s. 6 d. per acre.

From *Moreton* to *Chipping-Norton* 6 s. 6 d. From thence to *Oxford*, one minute 11 s. but the average, I believe, does not exceed 10 s.

From *Oxford* to *Henley*, the first minute 21 s. 6 d. the second 17 s. but as the first is the average of open and inclosed, with most of the former, I do not calculate the average of this track at more than 18 s. From *Henley* to *Maidenhead* 13 s. 9 d. From *Maidenhead* to *Hammersmith* 20 s. From thence, through *London* to *Barnet* 2 l. 12 s. 6 d. From *Barnet* to *North Mims* 16 s.

This is a track of an hundred and three miles, and the average rent is 19 s. 6 d.

Recapitulation.

	Miles.	Rent.
From <i>North Mims</i> to <i>Thrapston</i> ,	109	10s.
From <i>Thrapston</i> to <i>Doncaster</i> ,	107	8s.
From <i>Wentworth</i> and <i>Doncaster</i> to <i>Tadcaster</i> ,	118	16s. 6d.
From <i>Tadcaster</i> to the descent in- to <i>Cleveland</i> ,	237	8s.
From the descent into <i>Cleveland</i> to <i>Croft Bridge</i> ,	139	12s. 6d.
From <i>Greta Bridge</i> to <i>Richmond</i> ,	83	0s. 9d.
From <i>Croft Bridge</i> to <i>Newcastle</i> ,	50	21s.
Through <i>Northumberland</i> , the cul- tivated and uncultivated part,	154	7s. 9d.
Through <i>Westmoreland</i> and <i>Cum- berland</i> ,	90	7s. 6d.
Through <i>Lancashire</i> ,	123	22s. 6d.
From <i>Dunholm</i> , in <i>Cheshire</i> , to <i>Moreton</i> , in <i>Oxfordshire</i> ,	138	17s. 6d.
From <i>Moreton</i> , through <i>London</i> , to <i>Mims</i> ,	103	19s. 6d.

I have calculated these numerous and complex proportions with as much exactness as I am able, and I find, from several trials, the general average to be 11s. 9d. *per acre*.

I am, &c.

L E T-

L E T T E R XXV.

I Shall, in the next place, enquire into the product of pulse and roots; that is, chiefly pease, beans, and turneps; these are by no means to be overlooked, as their product will explain several points not to be discovered by knowing that of grain. I shall add as I proceed, the variations of culture, such as hoeing, &c. which are circumstances that ought never to be omitted. I shall not specify the soil, as it is minuted in the preceding letter.

Hatfield to Welwyn.

Rent, 12s.

				Q.	B.	P.
Product.	Pease	-	-	-	2	4 0

Turneps; hoe once, 50s. per acre.

Around Stevenage.

Rent, 9s.

Product.	Pease	-	-	-	2	4 0
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	Beans, never hoe	2	4 0
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Turneps, hoe once or twice, 2l. 2s.

Stevenage to Luton; at Offley.

Rent, 5s.

Product.	Pease	-	-	-	1	6 2
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Turneps; hoe once; value
2l. 7s. 6d.

Dunstable to Woburn; about Houghton.

Rent, 14s.

Product.

Product. Pease and beans mixed 4 0 0
 Beans alone, never hoe 3 1 0

About *Milton*.

Rent, 13s. 6d.

Product. Pease and beans mixed 3 0 0

Wooburn to Newport Pagnel.

Rent, 9s. 3d.

Product. Pease and beans mixed 2 4 0
 Beans; feed the weeds
 out with sheep - 3 0 0
 Turneps they hoe twice; value
 2l.

At *Broughton*.

Rent. 20s.

Product. Pease and beans - 2 4 0
 Beans; feed the weeds
 out with sheep - 2 4 0

Newport Pagnel to Bedford, at Biddenham.

Rent, 7s.

Product. Beans; feed the weeds
 out with sheep - 3 0 0
 Pease - - - 2 4 0

From *St. Neot's to Kimbolton*, about *Hale Weston*.

Rent, 17s.

Product. Pease - - - - 1 4 0
 Beans, never hoe - 1 7 0
 Turneps; hoe once; value 35s.

From *Kimbolton to Thrapston*, about *Catworth*.

Rent, 17s.

Product. Pease - - - - 2 0 0

From *Thrapston to Oundle*.

Rent, 5s.

Product.

Product. Beans, never hoe 3 0 0
feed with sheep.

Near Stamford.

Rent, 13s.

Product. Pease - - - - 2 4 0
Beans, never hoe - 3 2 0
Turneps; hoe once; value 2l. 2s.

From Stamford to Grimsthorpe.

Rent, 4s.

Product. Pease - - - - 2 0 0
Beans, never hoe - 2 4 0

From Grimsthorpe to Coltsworth.

Rent, 10s.

Product. Pease - - - - 4 0 0
Beans, never hoe - 3 0 0
Turneps; hoe once; value 2l.

Grantham to Newark.

Rent, 10s.

Product. Beans, never hoe - 2 4 0

Newark to Tuxford.

Rent, 15s.

Product. Pease - - - - 3 0 0
Beans, never hoe - 3 0 0
Turneps; hoe once or twice;
value, 40s.

At West Drayton.

Rent, 11s.

Product. Pease - - - - 3 0 0
Beans, never hoe - 2 4 0
Turneps; hoe once, 35s.

From Bawtry to Doncaster.

Rent, low.

Product.

Product. Pease - - - - 1 6 0

Turneps; never hoe, 27s. 6d.

Doncaster to Rotherham; Coneyborough.

Rent, 9s.

Product. Beans - - - - 2 2 0

Turneps; hoe once or twice;
value 30s.

Sheffield to Barnsley.

Rent, 17s.

Product. Pease - - - - 2 4 0

Beans, never hoe - 3 6 0

Turneps; hoe once or twice, 40s.

About Woolley.

Rent, 12s. 6d.

Product. Pease - - - - 1 7 0

Beans - - - - 2 2 0

Turneps; hoe once, 40s.

Leeds to Tadcaster.

Rent, 8s. 6d.

Product. Pease - - - - 1 6 0

Beans, never hoe - 3 2 0

Turneps; hoe once; value
42s. 6d.

From York to Barnby Moor.

Rent, 10s.

Product. Pease - - - - 2 1 2

Beans, never hoe - 2 1 2

Turneps; never hoed for the
first time.

At Hatton.

Rent, 12s. 6d.

Product. Pease - - - - 1 2 0

Beans, never hoe - 3 0 0

Around

*Around Risby.*Rent, 9*s.* 3*d.*

Product.	Pease	-	-	-	2	1	0
	Beans, never hoe; get						
	in open fields	-			3	4	0
	in inclosures	-			4	0	0
	Lentils	-	-	-	2	4	0
	Rape	-	-	-	4	0	0

*At Stillingfleet.*Rent, 10*s.*Product. Turneps; never hoe; value 27*s.**Holdernefs.*Rent, 17*s.* 6*d.*

Product. Rape - - - - 5 0 0

*About Howden.*Rent, 15*s.*

Product. Beans, never hoe - 2 4 0

*Around Thorne.*Rent, 10*s.*

Product. Beans, never hoe - 2 7 0

Turneps; never hoe; value 19*s.*

Rape - - - - 3 4 0

The Marquis of Rockingham's Kentish farm.

Product. Beans in drills, horse

hoed - - - - 5 0 0

Pease ditto - - - - 4 0 0

Turneps; hand hoe twice.

Much finer crops than common.

His Lordship's Hertfordshire farm.

Product. Beans in drills - 2 4 0

Ditto hoed - - - - 4 0 0

Pease

[43¹]

Pease - - - - 2 4 0

Turneps; hoed twice; value 36s.

Around *Wentworth-House*.

Rent, 8s.

Product. Beans; never hoe - 2 2 0

Ditto Mr. *Paine's*,

drilled and horse

and hand hoed - 3 6 0

Pease - - - - 3 0 0

Turneps; not hoed; value 20s.

Ditto hoed, 40s.

From *Beverley* to *Driffeld*.

Rent, 10s.

Product. Beans; never hoe - 3 4 0

Pease - - - - 3 0 0

Turneps; once hoed; value 3l.

From *Scarbro'* to *Malton*, about *Brumpton*.

Rent, 14s.

Product. Turneps; once hoed; 1l. 1s.

At *Yeddingham-bridge*.

Rent, 6s. 6d.

Product. Beans; never hoe - 3 0 0

Pease - - - - 1 7 0

Turneps; hoe once or twice,
value 22s. 6d.

About *East Newton*, &c.

Rent, 12s.

Product. Beans; never hoe - 2 0 0

Pease - - - - 2 0 0

Turneps; they sometimes hoe
twice, value 40s.

Rape - - - - 5 0 0

About.

About Nunnington.

Rent, 6s. 3d.

Product. Beans; never hoe	-	3	0	0
Pease	- - -	2	0	0

Mr. Turner at Kirkleatham.

Rent, 8s.

Turneps; hoed 4l.

Rape	- - - - -	5	0	0
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Around Kirkleatham.

Rent, 13s.

Product. Pease and beans; never				
hoe	- - -	3	6	0
Turneps; never hoe, value				3l.
Rape	- - - - -	5	0	0

At Gilsdale.

Rent, 11s. 6d.

Product. Turneps; never hoe, 50s.

Rape	- - - - -	5	0	0
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About Schorton.

Rent, 10s.

Product. Beans; never hoe	-	2	4	0
Pease	- - -	2	0	0
Turneps; never hoe; value				3l. 10s.

Rape	- - -	3	1	0
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Richmond to Greta-bridge, about Gilling.

Rent, 21s.

Product. Beans; never hoe	-	3	1	0
Pease	- - -	2	0	0
Turneps; never hoed; value				3l. 12s. 6d.

Rape	- - - - -	5	0	0
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From

From *Greta-bridge* to *Bows*, about *Rookby*.

Rent, 12s.

Product. Pease - - - - 2 1 0

Turneps; never hoe; value 3l.

Around *Kiplin*.

Rent, 12s. 6d.

Product. Beans; never hoe - 3 6 0

Pease - - - - 2 4 0

Turneps; never hoe; value 4l.

Rape - - - - 4 0 0

Mr. *Crowe's* husbandry.

Rent, 12s. 6d.

Product. Beans and pease - 3 6 0

Pease - - - - 4 0 0

Around *Swinton*.

Rent, 16s. 6d.

Product. Beans; never hoe - 2 0 0

Pease - - - - 2 0 0

Turneps; never hoe; the value 50s.

Rape - - - - 4 0 0

The *Moor-side* farms.

Rent, 4s. 6d.

Product. Turneps; never hoe; value 40s.

About *Craikhill*.

Rent, 13s.

Product. Pease - - - - 3 6 0

Turneps; never hoe; value

3l. 2s. 6d.

Around *Slenningford*.

Rent, 8s.

Product. Pease - - - - 1 4 0

Turneps; unhoed, 35s.

Around *Danby*.

Rent, 12s. 6d.

Product.	Beans; unhoed	-	2	6	2
	Pease	- - - -	4	0	2
	Turneps; unhoed,		45s.		
	Rape	- - - -	5	5	0

Mr. *Scroope's* husbandry.

Rent, 12s. 6d.

Product.	Beans; unhoed	-	3	7	0
	Turneps; thrice hoed		4	10	0

Earl of *Darlington's* husbandry.

Rent, 16s.

Product. Turneps; hoed twice, 5l.

Around *Raby-castle*.

Rent, 16s.

Product.	Pease	- - - -	3	6	0
	Turneps; unhoed	-	3	10	0

From *Newcastle* to *Morpeth*.

Rent, 20s.

Product.	Beans; unhoed	-	3	1	0
	Pease	- - - -	2	2	0
	Turneps; hoed,		4l.	4s.	
	Ditto; unhoed,		3l.		
	Rape	- - - -	5	0	0

About *Morpeth*.

Rent, 12s.

Product.	Beans; unhoed	-	3	4	0
	Pease	- - - -	1	6	0
	Turneps; hoed twice or thrice,		3l.		

Around *Alnwick*.

Rent, 15s.

Product:

Product. Beans - - - - 5 5 0
 Pease - - - - 2 4 0
 Turneps; twice hoed; value 4l.

About *Belford*.

Rent, 15s. 6d.

Product. Beans; unhoed - 7 4 0
 Pease - - - - 3 1 0
 Turneps; hoed twice, 45s.

At *Waren*.

Rent, 1s. 6d.

Product. Turneps; unhoed, 50s.

At *Hetton*.

Rent, 6s. 6d.

Product. Beans; unhoed - 2 2 0
 Pease - - - - 1 7 0
 Turneps; hoed twice, 55s.

About *Fenton*.

Rent, 11s. 3d.

Product. Beans and pease mixed,
 unhoed, - - - 3 1 0
 Pease - - - - 2 4 0
 Turneps; hoed once or twice,
 50s.

About *Rothbury*.

Rent, 10s. 6d.

Product. Pease - - - - 1 2 0
 Turneps; hoed twice; value 3l.

About *Cambo*.

Rent, 15s.

Product. Turneps; hoed once; value 3l.

About *Glenwelt*.

Rent, 12s. 6d.

Product. Beans; unhoed - 4 3 0
 Pease - - - 1 7 0
 Turneps; once hoed, 50s.

South of Carlisle.

Rent, 15s.

Product. Pease - - - 1 7 0
 Turneps, (some few hoed,) 50s.

About Penrith.

Rent, 8s. 9d.

Product. Pease - - - 2 0 0
 Turneps; unhoed, 50s.

Keswick.

Rent, 25s.

Product. Turneps; hoed, 55s.

From Kendal to Burton.

Rent, 1l. 1s.

Product. Beans; unhoed - 2 7 0
 Pease - - - 0 7 2
 Turneps; unhoed, 5l. 10s.
 (scarce.)

From Lancaster to Preston, about Kabers.

Rent, 17s.

Product. Beans - - - 4 4 0
 Pease - - - 3 6 0
 Turneps; unhoed, 8l. (used
 for cattle.)

Around Garstang.

Rent, 17s.

Product. Beans; unhoed - 3 6 0

About Ormskirk.

Rent, 15s.

Product. Beans; unhoed - 3 6 0
 Around

Around Altringham.

Rent, 20 s.

Product. Beans, in drills, hand-

weeded	-	-	5	0	0
Pease ditto	-	-	3	0	0
Turneps; unhoed, but thinned by hand, 7 l. (scarce.)					

From *Newcastle-under-line* to *Stone*, about
the latter.

Rent, 16 s.

Product. Beans	-	-	-	-	3	6	0
Pease	-	-	-	-	3	1	0
Turneps; hoed, 3 l.							

From *Rudgeley-bridge* to *Litchfield*, about
Shenstone.

Rent, 15 s.

Product. Pease	-	-	-	-	3	6	0
Turneps; hoed once, 35 s. un- hoed, 20 s.							

At *Aston*, near *Birmingham*.

Rent, 17 s. 6 d.

Product. Pease	-	-	-	-	2	4	0
Turneps; hoed 2 l. Hoed better than unhoed by 20 s.							

Around *Hagley*.

Rent, 20 s.

Product. Pease	-	-	-	-	3	6	0
Turneps; unhoed, 30 s.							

At *Bromsgrove*.

Rent, 30 s.

Product. Beans, set and hoed	5	0	0
F f 3		Pease	

Pease - - - - 3 6 0 ,

Turneps; unhoed, 30s.

From *Worcester* to *Oxford*, at *Pershore*.

Rent, 15s.

Product. Beans - - - - 3 1 0

Pease - - - - 3 1 0

Turneps; unhoed, 30s.

About *Bendsworth*.

Rent, 21s.

Product. Pease - - - - 3 1 0

Beans, in drills, hand-

hoed - - - - 5 0 0

Turneps; hoed once, 45s.

Around *Moreton*.

Rent, 20s.

Product. Pease - - - - 2 4 0

Beans - - - - 3 0 0

Turneps; twice hoed, 30s.

From *Oxford* to *Henley*, at *Benfington*.

Rent, 25s. 6d.

Product. Beans, in drills, hand-

hoed - - - - 5 0 0

Pease ditto - - - 4 0 0

Turneps; twice hoed, 2l. 10s.

About *Henley*.

Rent, 17s.

Product. Turneps; hoed once, 3l.

Around *Maidenhead*.

Rent, 20s.

Product. Pease - - - - 3 4 0

Turneps; hoed, 45s.

About

About *Harmondsworth*.

Rent, 20s.

Product. Pease - - - - 2 0 0

At *Kensington*.

Rent, 40s.

Product. Beans, indrills, hand-
hoed - - - 6 0 0

About *North Mims*.

Rent, 12s.

Product. Pease - - - - 3 0 0
Turneps; hoed, 30s.

The first proportion to be drawn from this general view of these crops, may properly be that of rent and value; to discover whether the quantity of product arises from the value of the land, or is decided by other circumstances; without being possessed of all such data, our reasonings would at best be very superficial.

Rent to 5s. an acre.

Places.	Rent. s. d.	Pease.		Mixture.	Beans.		Rape.	Turneps.					
		hoed.	unhoed.		hoed.	unhoed.		hoed.			unhoed.		
								l.	s.	d.	l.	s.	d.
Stevenage to } Luton, }	5		14					2	7	6			
Thrapston } to Oundle, }	5				24								
Stamford to } Grimsthorp, }	4		16		20								
Bawtry to } Doncaster, }			14								1	7	6
Swinton } Moorfide, }	4 6										2	0	0
Waren,	1 6										2	10	0
Averages,	4		14 $\frac{1}{2}$		22			2	7	6	2	5	10

Rents from 5s. to 10s. per acre.

Around } Stevenage, }	9		17		20		2	7	6
Wooburn to } Newport, }	9 3			20	24		2	0	0
Newport } Pagnel to } Bedford, }	7		20		24				

Grimsthorp

Places.	Rent. s. d.	Pease.		Mixture.	Beans.		Rape.	Turneps.					
		hoed.	unhoed.		hoed.	unhoed.		hoed.			unhoed.		
								l.	s.	d.	l.	s.	d.
Grimsthorp } to Colster- worth, }	10		32			24		2	0	0			
Grantham } to Newark, }	10					20							
Doncaster to } Rotherham, }	9					18		1	10	0			
Leeds to } Tadcaster, }	8 6		14			26		2	2	6			
York to } Barnby- moor, }	10		17			17							
Risby,	9 3		17			30	32						
Stillingfleet,	10										1	7	0
Around } Thorne, }	10					23	28				0	19	0
Marquis of } Rocking- ham's Ken- tish Farm, }	8	32			40								
Ditto Hert- } fordshire, }	8		20		32	20		1	16	0			
Around } Wentworth }	8		24		30	18		2	0	0	1	0	0
From Be- } verley to } Driffild, }	10		24			28		3	0	0			

Redding-

Places.	Rent. s. d.	Pease.		Mixture.	Beans.		Rape.	Turneps.					
		hoed.	unhoed.		hoed.	unhoed.		hoed.			unhoed.		
								l.	s.	d.	l.	s.	d.
Yedding- bam-bridge, }	6 6		15		24			1	2	6			
Nunnington,	6 3		16		24								
Mr. Turner, }													
Kirklea- tham, }	8						40 4	0	0				
Schorton,	10		16		20	25					3	10	0
Slensingford,	8		12								1	15	0
Hetton, near }													
Belford, }	6 6		15		18			2	15	0			
Penrith,	8 9		16								2	10	0
Averages,	9	32	18 20		34 22		31 2	4	10		1	16	10

Rents from 10s. to 15s. per acre.

Hatfield to }	12		20					2	10	0
Welwyn, }										
Dunstable to }				32	25					
Wooburn, }	14									
About Mil- }				24						
ton, }	13 6									
Near Stam- }					26		2	2	0	
ford, }	13 0		20							

Newark,

Places.	Rent.	Pease.		Mixture.	Beans.		Rape.	Turneps.					
		hoed.	unhoed.		hoed.	unhoed.		hoed.			unhoed.		
	s. d.							l. s. d.	l. s. d.	l. s. d.	l. s. d.	l. s. d.	l. s. d.
Newark to } Tuxford, }	15		24			24		2	0	0			
West Drayton, II			24			20		1	16	0			
Woolley, 12 6			15			18		2	0	0			
Hatton, 12 6			10			24							
Howden, 15						20							
Scarborough } to Malton, }	14							1	1	0			
East Newton, 12			16			16	40 2	0	0	0			
Around } Kirklea- } tham, }	13			30		40					3	0	0
Gilsdale, 11 6							40				2	10	0
Greta- } bridge to } Bows, }	12		17								3	0	0
Around } Kiplin, }	12 6		20			30	32				4	0	0
Mr Crowe's } husbandry, }	12 6		32	30									
Craikbill, 13			30								3	2	6
Danby, 12 6			32			22	45						
Mr. Scroope's } husbandry, }	12 6					31		4	10	0			
Morpeth, 12			14			28		3	0	0			

Alnwick,

Places.	Rent.		Pease.		Mixture.	Beans.		Rape.	Turneps.					
			hoed.	unhoed.		hoed.	unhoed.		hoed.			unhoed.		
	s.	d.							l.	s.	d.	l.	s.	d.
Alnwick,	15			20			45		4	0	0			
Fenton,	11	3		20	25				2	10	0			
Rothbury,	10	6		10					3	0	0			
Cambo,	15								3	0	0			
Glenwelt,	12	6		15			35		2	10	0			
Carlisle,	15			15					2	10	0			
Ormskirk,	15						30							
Rudgeley- bridge to Litchfield,	15			30					1	15	0	1	0	0
Pershore,	15			25			25					1	10	0
North Mims,	12			24					1	10	0			
Averages,	13			20	28		26	39	2	9	0	2	11	9

Rents from 15s. to 20s. per acre.

Wooburnto							
Newport	20		20	20			
Pagnet,							
St. Neot's to							
Kimbolton,	17	12		15	1	15	0
Kimboltonto							
Thrapston,	17	16					

Skeffield

Places.	Rent. s. d.	Pease.		Mixture.	Beans.		Rape.	Turneps.					
		hoed.	unhoed.		hoed.	unhoed.		hoed.			unhoed.		
								l.	s.	d.	l.	s.	d.
Sheffield to Barnsley, }	17		20			30		2	0	0			
Holdernefs,	17 6						40						
Swinton,	16 6		16			16	32				2	10	0
Earl of Darlington, }	16							5	0	0			
Around Raby-castle, }	16		30								3	10	0
Newcastle to Morpeth, }	20		18			25	40	4	4	0	3	0	0
Belford,	15 6		25			60		2	5	0			
Lancaster to Preston, }	17		30			36					8	0	0
Garflang,	17					30							
Altringham,	20	24				40					7	0	0
Stone,	16		25			30		3	0	0			
Near Bir- mingham, }	17 6		20					2	0	0	1	0	0
Hagley,	20		30								1	10	0
Moreton,	20		20			24		1	10	0			
Henley,	17							3	0	0			
Maidenhead,	20		28					2	5	0			
Harmond- sworth, }	20		16										
Averages,	17	24	21	20	40	28	37	2	13	10	3	18	6

Rents from 20s. to 40s. per acre.

Places.	Rent. s. d.	Pease.		Mixture.	Beans.		Rape.	Turneps.					
		hoed.	unhoed.		hoed.	unhoed.		hoed.			unhoed.		
								l.	s.	d.	l.	s.	d.
<i>Richmond to Greta-bridge,</i>	21		16			25					3	12	6
<i>Alnwick,</i>	25							2	15	0			
<i>Kendal to Burton,</i>	21		7			23					5	10	0
<i>Bromsgrove,</i>	30		30		40						1	10	0
<i>Bendsworth,</i>	21		25		40			2	5	0			
<i>Bensington,</i>	25 6	32			40			2	10	0			
<i>Kensington,</i>	40				48								
<i>Averages,</i>	26	32	19		42	24		2	10	0	3	10	10

General averages.

							Pease.	
							hoed.	unhoed.
Rent to 5s. per acre,	-	-	-	-	-	-		14
Ditto from 5s. to 10s.	-	-	-	-	-	-	32	18
Ditto from 10s. to 15s.	-	-	-	-	-	-		20
Ditto from 15s. to 20s.	-	-	-	-	-	-	24	21
Ditto from 20s. to 40s.	-	-	-	-	-	-	32	19
Average,	-	-	-	-	-	-	29	18
Hoed,	-	-	-	-	-	29		
Unhoed,	-	-	-	-	-	18		
						47		
Average,	-	-	-	-	-	23½		

Pease and Beans.

			Unhoed.
Rent from 5s. to 10s.	-	-	20
Ditto from 10s. to 15s.	-	-	28
Ditto from 15s. to 20s.	-	-	20
Average,	-	-	22
Former ditto,	-	23½	

Average, - - 22 bushels 3 pecks.

From the first view of this table it is evident that rent has very little concern in the production of pease: The mixture may be considered as the same thing, as beans are generally sown rather with an intention of supporting the pease than of having a double crop; sometimes one will fail and another succeed; and the bean being a better bearer than the pea, makes the superiority of four bushels on the side of the mixture. But it is remarkable that the rent from 5s. to 10s. should produce as large a crop as from 15s. to 20s. And in pease alone 10s. to 15s. yields more than from 20s. to 40s. In a word, the product clearly appears to be very little connected with rent, and that in the hoed as well as the unhoed crops: Our common experience justifies this result, for I have many times observed, that this ticklish crop often fails where it has been most expected to yield largely, and frequently on poor dry sandy soils to produce crops that have surprized the owners. This, I think, should be a lesson to the occupiers of good lands

lands not to apply them to the production of a crop, in which the weakest soils may rival them with success.

But the importance of hoeing is extremely visible; the superiority of eleven bushels in twenty-nine is vast; an acre and a half hoed is near as good as two unhoed; this is an object of undoubted importance to the farmer, and demands his warmest attention. It is not the eleven bushels only that he is to consider, although no trifle, but likewise the state of the land after the crop: A poor one of pease suffers the weeds to get so much a head, that the soil is filled with their seeds and exhausted by their growth, consequently is proper only for a fallow; whereas, after a fine clean crop, the land is rendered mellow and in excellent order for any kind of grain; wheat is commonly sown after them, and with great success, if the crop is large, or barley, &c. The importance, therefore, of hoeing is manifest, and the amount of the superiority prodigious.

Beans.

	Hoed.	Unhoed.
Rent to 5 <i>s.</i> <i>per</i> acre, - - -		22
Ditto from 5 <i>s.</i> to 10 <i>s.</i> - - -	34	22
Ditto from 10 <i>s.</i> to 15 <i>s.</i> - - -		26
Ditto from 15 <i>s.</i> to 20 <i>s.</i> - - -	40	28
Ditto from 20 <i>s.</i> to 40 <i>s.</i> - - -	42	24
Average, - - - -	38½	24
General average, -	31 bushels	1 peck.
		This

This state is very decisive in most points. Rent we find, as in the case of pease, has little or no effect upon the product: From 20s. to 40s. is but two bushels superior to the rents under 5s. which is surprizing; and with beans requires more explanation than was requisite with pease. It is well known they are scarce ever sown on poor soils; their appearing, therefore, in a scale so low as 5s. must arise from the rent being very favourable, or from particular circumstances, or perhaps from both; as is the case with many crops that are raised on open field land in *Bedfordshire* and *Northamptonshire*, which from being open is low in rent, and from favour so low as 5s. There are in different parts of the kingdom many tracks of wet, unkindly, open fields, strong enough for beans, that not only lett so low as 5s. but are really worth no more. Now such soils, without proper management, may easily be supposed to yield as good crops as others vastly richer, and for this reason, very fertile land in the hands of a slovenly farmer is eternally overrun with weeds, insomuch that half the crops are ruined by them; the richer the soil the poorer the crop in many cases; and the poorer land not, in its nature, abounding so much with weeds, gains by these means an equality with soils far superior. That this reasoning is just there is great

reason to believe, from the progression being different in the hoed crops, which vary eight bushels where the unhoed ones vary but two.

The consequence of hoeing can no where be more apparent than here; *two* acres hoed are better by four bushels than *three* unhoed, which difference is very great. The farmer who sows two hundred acres, and hoes them, adjoining a neighbour who has three hundred unhoed, reaps eight hundred bushels more than the latter. Is not this an argument strong enough? But farther, his neighbour's land is in such a weedy, exhausted condition, that his three hundred acres are thrown by for a fallow; this is the custom of most counties that do not hoe; beans the last crop of the course. On the contrary, the hoeing farmer sows his two hundred acres with wheat, of which he gets to the full as good a crop as his neighbour: What an amazing difference between them at the end of two years! And carry the comparison further, it will soon appear that the difference, in no great number of years, will amount to the value of the fee simple of the land: so great a benefit results, in numerous instances, from small expences; half the four bushels superiority, after the balance of two acres to three, will, in most counties of *England*, hoe an acre twice, and well too; three bushels would any where do it to perfection.

The

The superiority of the hoed is fourteen bushels *per* acre; the farmer would, therefore, by hoeing gain a *clear* profit of eleven bushels, besides saving the expence of a fallow and a year's rent; besides keeping his lands generally in better order *without* fallowing, than his slovenly neighbour *with*.

This, it is true, is only reasoning, but it is reasoning on solid, and indisputable facts, in themselves sufficiently clear to convince the unprejudiced; but common farmers want gilding even to a sugar-plumb: Is it not astonishing, that while facts speak so strongly, nine-tenths of the beans in the kingdom remain unhoed: Is it not a disgrace to this land of agriculture, that so many counties should persist in the slovenly custom of depending alone on their flocks of sheep for weeding their beans! Let no one accuse me of the vanity of thinking I shall ever, by writing, wean farmers from their prejudices. I do not address myself to them; but to those from whom all improvements in agriculture must have their origin—their landlords: It surely much behoves them to exert some attention on an object so essential to the good of husbandry, and consequently to their own advantage.

R A P E.

Rent from 5s. to 10s.	- - -	31
Ditto from 10s. to 15s.	- - -	39
Ditto from 15s. to 20s.	- - -	37
Average, - - - - -		36
G g 2		The

The general rise from 5*s.* and 10*s.* to 10*s.* and 20*s.* is something, but not what might be supposed, from a crop that must be fallowed for till *Midsummer*, and consequently not in the same danger of destruction by weeds in rich land, as beans or pease. I attribute the similitude of these products to the practice of paring and burning.—In a large track of country in the North, they generally pare and burn for rape, which is so excellent a method, that the crops they get on poor land, even on moor land of 2*s.* 6*d.* an acre, are very great: this is the reason why rent bears no more proportion to the crops.

T U R N E P S.

	Hoed.			Unhoed.		
Rent to 5 <i>s.</i> <i>per</i> acre,	2	7	6	2	5	10
Ditto from 5 <i>s.</i> to 10 <i>s.</i>	2	4	10	1	16	10
Ditto from 10 <i>s.</i> to 15 <i>s.</i>	2	9	0	2	11	9
Ditto from 15 <i>s.</i> to 20 <i>s.</i>	2	13	10	3	18	6
Ditto from 20 <i>s.</i> to 40 <i>s.</i>	2	10	0	3	10	10
Average, - - -	2	8	10	2	16	9

The conclusion which some would draw at first sight from this table, is to the disadvantage of hoeing. And truly this state of the case is, I apprehend, one of the most extraordinary combinations I shall meet with in the whole course of these enquiries. The existence of such a vegetable as a turnep, is not a more certain fact, than

than the superiority of hoed to unhoed crops; but the above general average seems totally to contradict it; we must, therefore, examine the point minutely, and enquire into the reason of such a seeming paradox.

The prices of all commodities depend upon the quantity to be sold; if turneps are scarcer in one county than in another, with an equality of cattle in each, undoubtedly they will be dearest where scarcest: this is manifestly the case in question: the countries in which hoeing is fully established, are consequently those in which the culture is the oldest and most common; to one acre of turneps in any county that does not hoe, there certainly are forty in another that does: the existence of such an improvement speaks sufficiently this fact. From hence it results, that turneps in the countries that do not hoe, must infallibly be dearer than in those which do bestow that operation on them: This is clear enough from mere *reasoning*; but *facts* should, in such works as this, be the guide, whenever it is possible to gain them. I shall, therefore, strike a line across the kingdom, and form two averages, one for the North of *England*, the other for the South; the first in general does not hoe, and the other does: We shall from thence find, that turneps themselves, whether hoed or not, are much dearer in one divi-

fion than in the other. I shall throw *Yorkshire* and *Lancashire* to the North, and all south of them to the South.

The S O U T H.

			Hoed.			Unhed.		
<i>Hatfield, &c.</i>	—	—	2	10	0			
<i>Stevenage,</i>	—	—	2	2	0			
<i>Luton,</i>	—	—	2	7	6			
<i>Wooburn,</i>	—	—	2	0	0			
<i>St. Neot's,</i>	—	—	1	15	0			
<i>Stamford,</i>	—	—	2	2	0			
<i>Grimsthorpe,</i>	—	—	2	0	0			
<i>Newark,</i>	—	—	2	0	0			
<i>Drayton,</i>	—	—	1	15	0			
<i>Newcastle-under-line,</i>	—	—	3	0	0			
<i>Litchfield,</i>	—	—	1	15	0	1	0	0
<i>Birmingham,</i>	—	—	2	0	0	1	0	0
<i>Hagley,</i>	—	—	—	—	—	1	10	0
<i>Bromsgrove,</i>	—	—	—	—	—	1	10	0
<i>Pershore,</i>	—	—	—	—	—	1	10	0
<i>Bendsworth,</i>	—	—	2	5	0			
<i>Moreton,</i>	—	—	1	10	0			
<i>Bensington,</i>	—	—	2	10	0			
<i>Henley,</i>	—	—	3	0	0			
<i>Maidenhead,</i>	—	—	2	5	0			
<i>North Mims,</i>	—	—	1	10	0			
<i>Average,</i>	—	—	2	2	7	1	6	0
<i>Ditto of both,</i>	—	—	1	14	3			

The

The NORTH.

			Hoed.	Unhoed.
Doncaster,	—	—	—	1 7 6
Rotherham,	—	—	1 10 0	
Sheffield,	—	—	2 0 0	
Woolley,	—	—	2 0 0	
Leeds,	—	—	2 2 6	
Stillingfleet,	—	—	—	1 7 0
Thorne,	—	—	—	0 19 0
Marquis of Rockingham's Hertfordshire farm,		}	1 16 0	
Around Wentworth,	—		2 0 0	1 0 0
Beverley,	—	—	3 0 0	
Scarborough,	—	—	1 1 0	
Yeddingham,	—	—	1 2 6	
Newton,	—	—	2 0 0	
Kirkleatham, Mr. Turner,	—	4	0 0	
Around ditto,	—	—	—	3 0 0
Gilfdale,	—	—	—	2 10 0
Schorton,	—	—	—	3 10 0
Gilling,	—	—	—	3 12 6
Rookby,	—	—	—	3 0 0
Kiplin,	—	—	—	4 0 0
Swinton,	—	—	—	2 10 0
Moor-side farms,	—	—	—	2 0 0
Craikbill,	—	—	—	3 2 6
Slensingford,	—	—	—	1 15 0
Danby,	—	—	—	2 5 0
Mr. Scroope,	—	—	4 10 0	
Earl of Darlington,	—	—	5 0 0	
Around Raby,	—	—	—	3 10 0
Newcastle,	—	—	4 4 0	3 0 0
Morpeth,	—	—	3 0 0	
Alnwick,	—	—	4 0 0	

G g 4

Belford,

				Hoed.			Unhoed.		
<i>Belford,</i>	—	—	—	2	5	0			
<i>Waren,</i>	—	—	—				2	10	0
<i>Hetton,</i>	—	—	—	2	15	0			
<i>Fenton,</i>	—	—	—	2	10	0			
<i>Rotbury,</i>	—	—	—	3	0	0			
<i>Cambo,</i>	—	—	—	3	0	0			
<i>Glenwelt,</i>	—	—	—	2	10	0			
<i>Carlisle,</i>	—	—	—	2	10	0			
<i>Penrith,</i>	—	—	—				2	10	0
<i>Keswick,</i>	—	—	—	2	15	0			
<i>Kendal,</i>	—	—	—				5	10	0
<i>Preston,</i>	—	—	—				8	0	0
<i>Altringham,</i>	—	—	—				7	0	0
Average,	—	—	—	2	14	0	3	1	6
Ditto of both,	—	—	—	2	17	9			
General average of the North,	—	—	—				2	17	9
Of the South,	—	—	—				1	14	3
Turneps dearer in the North than in the South, by	—	—	—				1	3	6
Average of hoed crops in the North,				2	14	0			
Ditto in the South,	—	—	—				2	2	7
Hoed ones dearer in the former, by							0	11	5
Average of unhoed crops in the North,				3	1	6			
Ditto in the South,	—	—	—				1	6	0
Unhoed, dearer in the former, by	—	—	—				1	15	6

From

From this comparison it plainly appears, that this vegetable is, in general, dearer in the north than in the south; and I should remark, that the more the tour was extended through the north, the greater disproportion would be found between the quantity hoed and not hoed; and the farther it was extended in the south, the more in proportion would be found to be hoed: hence arises the seeming superiority of the unhoed crops. The unhoed average in the north being superior to that of the hoed, is owing to the same reason; several places are minuted where turneps are so scarce as to be valued, even for cattle, at 7*l.* and 8*l.* This raises the average of the unhoed crops, for we may be assured, from such scarcity, that hoeing is quite unknown.

But there is another very strong and convincing proof, that, in every country, hoed turneps are superior to unhoed ones, and that is, the several comparisons made in the respective places; for instance, near *Litchfield*, the hoed crops sell at 35*s.* but the unhoed at only 20*s.* Near *Birmingham* the hoed at 40*s.* the unhoed at no more than 20*s.* Around the Marquis of *Rockingham's*, the hoed at 40*s.* the unhoed at only 20*s.* At *Raby-castle*, the hoed at 5*l.* the unhoed 3*l.* 10*s.* Near *Newcastle*, the hoed 4*l.* 4*s.* the unhoed no more than 3*l.* These places include both the north and south; the superiority

periority of the hoed crops is very great ; and the comparifon being made on the fame foils, and in the fame places, it amounts to demonftration.

Those gentlemen who are unprejudiced, or who have practifed agriculture, may perhaps be furprized at my beftowing fo much attention, in proving what is acknowledged by the moft fenfible part of mankind; but they are not acquainted, nor poffibly can conceive, the number of fticklers in the north, even among gentlemen, for *the good old way*; and as to nine-tenths of the farmers they treat the idea of hoeing with contempt. Many butchers and graziers will not buy hoed turneps, and one in particular, famous in the neighbourhood of *Kiplin* and *Crakehill*, in the *North-Riding* of *Yorkshire*, who purchafes every year fome hundreds of acres, will not allow an equal price for one that is hoed !

While fuch very extenfive tracks of country continue in fo great an error, and while even gentlemen countenance it, I do not think any endeavours to effect a change of conduct fhould be omitted, or that one's attention is wafte in examining the whole ftate of the affair.

But it is further requifite to obferve, that the great benefit of hoeing is not to the crop alone, but to all the fucceeding ones in the courfe : In this refpect, what I before

fore remarked concerning hoeing of beans, is applicable to turneps, only much more strong, for beans are not made a fallow crop (that is, succeeded by corn) in slovenly management near so often as turneps: I know not any part of *England* in which land is fallowed the year succeeding turneps; they are every where considered as a fallow, and barley generally sowed after them: The terrible effects of this conduct must be prodigious, for the unhoed crops of turneps are (except on pared and burnt land) universally full of weeds, that have time to perfect, and drop their seeds, besides exhausting the soil of that nourishment which the crop ought to possess. The barley that succeeds must infallibly be a weedy crop, and if the course goes on, the soil must be quite poisoned with trumpery.

But relative to the turneps themselves, the difference between the hoed, and the unhoed ones, is greater than commonly imagined in the north. The very best field to be found at *Kiplin*, a fine gravelly soil, of 16s. an acre, and the very best spot in the whole field, weighed under thirteen tons, which would certainly reduce the average product of the neighbourhood to four or five tons: Now such a soil, well managed, and without dung, whereas that field was well manured, should produce, on an average, thirty tons *per* acre, and thoroughly

roughly manured, from forty to fifty tons, which is full ten times greater than the produce of that neighbourhood ; and I should not exaggerate, if I said twenty times greater than the average of all unhoeing countries ; a difference so prodigious, that it is really astonishing landlords do not exert themselves to introduce the practice.

But when I speak of hoeing in general, I would never be understood to mean such hoeing as I have seen more than once in unhoeing countries. In the *East-Riding* of *Yorkshire* they hoe in some places, but in so slovenly a manner, that I would not give sixpence a field for the operation ; and yet it is done but once, and reckoned a great feat in good husbandry. Turneps should always be hoed twice, and every plant set out from twelve to eighteen inches distance, according to the strength of the soil, and not a weed suffered to grow.

But in what manner, say some, is this change to be effected ? I reply, not without trouble ; a man must not expect to stamp with his foot, and have hoed plants sprout from the soil. The first object is to enter with spirit into the hoeing husbandry themselves, and not be contented with the hoers of the neighbourhood, if they do not understand the work in perfection : Men are easily enough to be procured in every part of *Britain*, that will change their residence

fidence for a time, if they are well paid. Some landlords, who own several thousands of acres of land, have talked to me of the difficulty of getting turnep-hoers. Were I possessed of a tenth of their estates, I would have them from *Indus*, rather than go without them: But the difficulty is nothing, a little resolution and money would overcome such paltry objections*. They should never suffer an acre of turneps to be seen on their own land that was not hoed in the last perfection, except here and there a stripe left quite unhoed, for the tenants to see the difference. This has been the plan of that excellent cultivator, the Marquis of *Rockingham*, who carried good hoers from the south, and, by spirited exertions, brought the practice, by degrees, to bear, and will, in time, render the turnep crops around *Wentworth* as clean as any in *England*. Much does his country owe to such a conduct!

In the next place, landlords ought to obviate all the objections of their tenants; procure them hoes (none on any account shorter than ten inches) and hoers, that no excuses under those heads may be made by them; and if they have a pernicious butcher

* I have some reason for this remark: In *Hertfordshire* no plough stirs without four horses and a driver, except my own. I have ploughs, horses, and men, from *Suffolk*, and if I lived in the Highlands of *Scotland*, I would have good turnep-hoers.

or grazier that rejects hoed turneps, transplant a more rational animal in his place. But in the introduction of all new modes of husbandry, no method is of such efficacy as the fixing a little colony of farmers on an estate that have, from their infancy, been used to the good custom that is wanted to be introduced. A single one will not often effect it, his neighbours will laugh him too much out of countenance; but when two or three are ready to stand by each other, they will have the greater satisfaction in doing what they know is right. The Marquis of *Rockingham's* establishment of a *Kentish* and a *Hertfordshire* farm was a most excellent method of setting a good example, and raising an emulation that must have great effects.

Lastly, it should be an established maxim never to allow turneps unhoed to be a fallow; completely hoed they should be so esteemed; but when slovenly done, or not at all, they should be reckoned a crop, and the number in the course regulated accordingly. This would have very great effects; it would be talking to the farmers in a stile they understand, feelingly.

Whatever depended on praise and encouragement should be exerted, for kind words, from a good landlord, will always have their weight. Mr. *Crowe*, of *Kiplin*, purchased a large silver cup last spring,
upon

upon which is engraved, *For the best six acres of boed turneps*, 1769, and a space left for the tenant's name that wins it. It is to be displayed on the rent-day, and delivered on that which follows. The thought was an excellent one, and will, beyond doubt, have a good effect.

The importance of an accurate culture of these ameliorating crops is not sufficiently known among the common farmers in nine-tenths of the kingdom. It has been so long an idea, that all land must be fallowed, that landlords have universally been extremely backward to admit any vegetable as a substitute; and no wonder, since bad tenants are always so free with sowing exhausting crops, and running the soil out of heart; both reasons have concurred to keep back so profitable a branch of agriculture. It is a fact, that no land absolutely requires a fallow; but then the husbandry should be very spiritedly executed to keep it clean, particularly heavy soils: Upon light or dry ones, turneps and clover, properly introduced, are undoubtedly preferable to a fallow; and upon clays and strong loams, beans are an excellent substitute to turneps, admit the soils being kept as clean as a fallow; particularly if sown in drills (which is much the cheapest method of cultivating them) and equally ameliorates it. But I need not surely add, that all
these

these extremely beneficial effects depend entirely upon the turneps and beans being kept in complete order, without a weed in them, and the surface so loosened by hoeings, as always to be in a state of pulverization; the profit of this husbandry is very great; if well executed, it is two hundred *per cent.* more advantageous than the common methods.

Having endeavoured to analyze these crops, you will allow me, before I proceed to others, to conclude myself, &c.

END of VOLUME III.



